A1-F18AC-460-500
1 September 1998
Change 1 - 1 July 2000

TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE SYSTEM SCHEMATICS

FUEL SYSTEM

NAVY MODEL
F/A-18A AND F/A-18B
161353 AND UP

N00421-98-D-1339

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NATEC ELECTRONIC MANUAL

NUMERICAL INDEX OF EFFECTIVE WORK PACKAGES/PAGES

List of Current Changes

Change 0 . . . . . 1 Sep 98 Change 1 . . . . . 1 Jul 00

Only those work packages/pages assigned to the manual are listed in this index. Insert Change 1, dated 1 July 2000. Dispose of superseded work packages/pages. Superseded classified work packages/pages shall be destroyed in accordance with applicable security regulations. If changed pages are issued to a work package, insert the changed pages in the applicable work package. The portion of text affected in a change or revision is indicated by change bars or the change symbol "R" in the outer margin of each column of text. Changes to illustrations are indicated by pointing hands, change bars, or MAJOR CHANGE symbols. Changes to diagrams may be indicated by shaded borders.

WP Number	Title	WP Number	Title
Title		006 05	Deleted
Page A	Numerical Index of Effective Work Packages/Pages	007 00	Internal Fuel Transfer System
TPDR-1	List of Technical Publications Deficiency Reports Incorporated	007 01	Internal Fuel Transfer System Component Locator
001 00	Alphabetical Index	007 02	Internal Fuel Transfer System 161353 THRU 161519 BEFORE F18 AFC 21, 39 AND 53
002 00	Introduction	007 03	Internal Fuel Transfer System 161520 THRU 161761
003 00	Fuel Storage System	007 04	Internal Fuel Transfer System Maintenance Code Schematic
004 00	Refuel/Defuel System	007 05	Fuel System Test Mode Schematics, 161520 THRU 161761 BEFORE F18 AFC 53, 39, 18 AND 21
004 01	Refuel/Defuel System Component Locator	007 06	Internal Fuel Transfer System 161924 THRU 161987; ALSO 161353 THRU 161519 AFTER F18 AFC 21, 39 AND 53
004 02	Refuel/Defuel System 161353 THRU 161761, BEFORE F18 AFC 39	007 07	Internal Fuel Transfer System 162394 AND UP
004 03	Refuel/Defuel System 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39	008 00	Engine Fuel Supply System
005 00	Inflight Refueling System	009 00	Fuel Dump System
006 00	External Fuel System	009 01	Fuel Dump System Component Locator
006 01	External Fuel System Component Locator	009 02	Fuel Dump System 161353 THRU 161761 BEFORE F18 AFC 53
006 02	External Fuel System 161353 THRU 161761, BEFORE F18 AFC 39		
006 03	Deleted		
006 04	External Fuel System 161924 AND UP, ALSO 161353 THRU 161761 AFTER F18 AFC 39		

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009 04	Fuel Dump System 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 53
010 00	Hot Fuel Recirculation System
011 00	Fuel Pressurization and Vent System
012 00	Fuel Quantity Gaging System
012 01	Fuel Quantity Gaging System Component Locator
012 02	Fuel Quantity Gaging System 161353 THRU 161359
012 03	Fuel Quantity Gaging System 161360 AND UP
012 04	Fuel Quantity Gaging System BIT Cautions and Advisory Schematic
013 00	Fuel Quantity Low Level Warning System
013 01	Fuel Quantity Low Level Warning System Component Locator
013 02	Fuel Quantity Low Level Warning System 161353 THRU 161761
013 03	Fuel Quantity Low Level Warning System 161924 AND UP
013 04	Fuel Quantity Low Level Warning System Caution Schematic
014 00	Center of Gravity (CG) Control System, 161520 AND UP
014 01	Center of Gravity (CG) Control System Component Locator, 161520 AND UP
014 02	Center of Gravity (CG) Control System 161520 THRU 161761, BEFORE F18 AFC 39 AND 53
014 03	Center of Gravity (CG) Control System Caution 161520 AND UP
014 04	Center of Gravity (CG) Control System 161924 THRU 161987; ALSO 161353 THRU 161761 AFTER F18 AFC 39 AND 53
014 05	Center of Gravity (CG) Control System 162394 AND UP

Total number of pages in this manual is 382 consisting of the following:

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Title	1
A - C	1
TPDR-1	1
TPDR-2 blank	1
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2 blank	0
002 00	
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006 04	
1 - 6	0

WP/Page Number	Change Number
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LIST OF TECHNICAL PUBLICATIONS DEFICIENCY REPORTS INCORPORATED

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL SYSTEM

This TPDR page supersedes TPDR page, dated 1 September 1998.

1. The TPDR listed below has been incorporated in this issue.

IDENTIFICATION NUMBER/ QA SEQUENCE NUMBER	LOCATION
None	

ALPHABETICAL INDEX

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL SYSTEM

Title	WP Number
CG Control System	014 00
Defuel/Refuel System	004 00
Dump System, Fuel	009 00
Engine Fuel Supply System	008 00
External Fuel System	006 00
Fuel, Dump System	009 00
Fuel Pressurization and Vent System	011 00
Fuel Quantity Gaging System	012 00
Fuel Quantity Low Level Warning System	013 00
Fuel Recirculation System, Hot	010 00
Fuel Storage System	003 00
Fuel Supply System, Engine	008 00
Gaging System, Fuel Quantity	012 00
Hot Fuel Recirculation System	010 00
Inflight Refueling System	005 00
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INTRODUCTION

ORGANIZATIONAL MAINTENANCE

SYSTEMS SCHEMATICS

FUEL SYSTEM

1. PURPOSE.

2. This manual has system schematics to give information about the system and allow signal tracing through the system. The system schematics support on-aircraft maintenance of mechanical, pneudraulic, electrical, and electronic functions. These functions are integrated on the schematics for ease of troubleshooting a complete system.

3. REQUISITIONING AND DISTRIBUTION OF NAVAIR TECHNICAL PUBLICATIONS.

4. Procedures to be used by Naval activities and other Department of Defense activities requiring NAVAIR technical manuals are defined in NAVAIR 00-25-100 and NAVAIRINST 5605.5.4A.

5. To automatically receive future changes and revisions to NAVAIR technical manuals, an activity must be established on the Automatic Distribution Requirements List (ADRL) maintained by the Naval Air Technical Data and Engineering Service Command (NATEC). To become established on the ADRL , notify your activity central technical publications librarian. If your activity does not have a library, you may establish your automatic distribution by contacting the Commanding Officer, NATEC, Attn: Distribution, NAS North Island, Bldg. 90, P. O. Box 357031, San Diego, CA 92135-7031. Annual reconfirmation of these requirements is necessary to remain on automatic distribution. Please use your NATEC assigned account number whenever referring to automatic distribution requirements.

6. If additional or replacement copies of this manual are required with no attendant changes in the ADRL, they may be ordered by submitting a MILSTRIP requisition in accordance with NAVSUP 485 to Routing Identifier Code “NFZ”. MILSTRIP requisitions can be submitted through your supply office, Navy message, or SALTS to DAAS (Defense Automated Address System), or through the DAAS or NAVSUP web sites. For assistance with a MILSTRIP requisition, contact the Naval Inventory Control Point (NAVICP) Publications and Forms Customer Service at DSN 442-2626 or (215) 697-2626, Monday through Friday, 0700 to 1600 Eastern Time.

7. CONTENT.

8. Each system is supported by schematics and component locator.

9. **COMPONENT LOCATOR**. The component locator shows aircraft location, nomenclature and reference designation number of each system component. The illustration shows the technicians view when possible.

10. **SCHEMATICS.** Simplified schematics, and detailed schematics provide direct support for testing and troubleshooting. All schematics are shown with electrical power off, switches in off position, and relays in deenergized position unless noted on schematic.

11. **SIMPLIFIED SCHEMATICS.** Simplified schematics consist primarily of blocks connected by single lines with limited use of symbols and pictorial drawing of units. These schematics simplify system functions as much as possible.

12. **DETAILED SCHEMATICS.** Detailed schematics integrate applicable electrical, pneudraulic and mechanical functions of the system. Detailed schematics show component location, connector pin letters and numbers, in line connectors, test points, and enough data to trace signals through the components within the system. Operational information next to components provides more data as required.

13. **SCHEMATIC HIGHLIGHTS.**

14. For schematic highlights see figure 1.

15. **MANUAL ISSUE DATE.**

16. The date on the title page is the copy freeze date. No additions, deletions, or changes are made after the manual issue date except last minute safety of flight or required maintenance changes. Data collected after the manual issue date will be included in later changes or revisions of the manual.

17. **EFFECTIVITIES.**

18. Effectivity notes on manual title pages, word package title pages, and within a work package indicate the aircraft or software program to which the data applies. If no effectivity note appears on the work package title page, the work package has the same effectivity as shown on the manual title page. The effectivity notes may use:

NOTE

Aircraft with model designator F/A-18B are the same type and model as TF/A-18A.

a. Type, model, and series
b. Bureau number (tail number)
c. Combination of type, model, series, and bureau numbers
d. Part number or serial number
e. Technical directive number
f. Configuration/identification number

19. The table below shows examples of effectivity notes and their meanings:

Effectivity Note Examples

Effectivity Note	Definition
160777 AND UP	Applicable to all F/A-18B, F/A-18C and F/A-18D for bureau numbers listed.
F/A-18A, F/A-18B	Applicable to all F/A-18A and F/A-18B.
F/A-18C, F/A-18D	Applicable to all F/A-18C and F/A-18D.
F/A-18A	Applicable to all F/A-18A, but not F/A-18B, F/A-18C and F/A-18D.

Effectivity Note Examples (Continued)

Effectivity Note	Definition
F/A-18B	Applicable to all F/A-18B, but not F/A-18A, F/A-18C, and F/A-18D.
F/A-18C	Applicable to all F/A-18C, but not F/A-18A, F/A-18B, and F/A-18D.
F/A-18D	Applicable to all F/A-18D, but not F/A-18A, F/A-18B, and F/A-18C.
F/A-18A, F/A-18C	Applicable to all F/A-18A and F/A-18C, but not to F/A-18B and F/A-18D.
F/A-18B, F/A-18D	Applicable to all F/A-18B and F/A-18D, but not F/A-18A and F/A-18C.
F/A-18A 160775, 160777 THRU 160782	Only applicable to some bureau numbers of F/A-18A. Not applicable to any F/A-18B, even if a F/A-18B bureau number is within the numbers listed.
F/A-18C 163427, 163430, THRU 163456	Only applicable to some bureau numbers of F/A-18C. Not applicable to any F/A-18D, even if a F/A-18D bureau number is within the numbers listed.
F/A-18B 160784 AND UP	Only applicable to some bureau numbers of F/A-18B. Not applicable to any F/A-18A, even if an F/A-18A bureau number is within the numbers listed.
F/A-18D 163434 THRU 163457	Only Applicable to some bureau numbers of F/A-18D. Not applicable to any F/A-18C, even if a F/A-18C bureau number is within the numbers listed.
160775 THRU 160785 BEFORE F/A-18 AFC 772	Applicable to F/A-18A and F/A-18B for bureau numbers listed, before modification by technical directive.
161213 AND UP; ALSO 160775 THRU 160785 AFTER F/A-18 AFC 772	Applicable to aircraft modified during production; also applicable when affected aircraft have been modified by technical directive.
160775 THRU 160785; WHEN NO. 2 CONTROL PANEL P/N XXXX-X IS INSTALLED	Applicable to F/A-18A and F/A-18B for bureau numbers listed if panel P/N XXXX-X is installed. (Configuration before AVC)
161213 AND UP; ALSO 160775 THRU 160785; WHEN NO. 2 CONTROL PANEL P/N XXXX-Y (AVC-102) IS INSTALLED	Applicable to aircraft modified during production; also applicable to aircraft components modified to the production configuration by technical directive. (Configuration after AVC)
P/N MBEU65101-9, MBEU65101-10 & MBEU65105-3	Applicable to assemblies which are interchangeable between aircraft.
ENGINE NO. 215101 THRU 215109	Applicable to assemblies which are interchangeable between aircraft, but configuration can not be identified by part number.
CONFIG/IDENT NUMBER 84A	The CONFIG/IDENT Number is the program load identification number which identifies the software program loaded in specific programmable units. Refer to A1-F18AC-SCM-000 for CONFIG/IDENT Number tables.

20. **TECHNICAL DIRECTIVES.**

21. Technical directives are documents which direct the accomplishment, and recording of a retrofit configuration or inspection to delivered aircraft, or aircraft components.

22. **AIRFRAME CHANGE (AFC) AND AIRBORNE TACTICAL SOFTWARE CHANGE (ASC).** Technical directives which change configuration of aircraft structure or equipment installation, i.e. AFC, will list aircraft bureau numbers in effectivity notes and show before and after the AFC. Technical directives which change configuration of operational flight programs (OFP), i.e. ASC, will list the OFP CONFIG/IDENT NUMBER in effectivity notes and show the latest two authorized OFP programs. See AFC and ASC effectivity examples in Effectivity Note Example Table.

23. **AIRCRAFT COMPONENT CHANGES.** Technical directives which change configuration of aircraft components, i.e. AAC, ACC, AVC, AYC, and PPC will list part numbers in the effectivities. See AVC effectivity examples in Effectivity Note Example table.

24. **HISTORICAL RECORD/RECORD OF APPLICABLE TECHNICAL DIRECTIVES.**

25. The technical directives affecting this manual are listed in the Record of Applicable Technical Directives of each affected work package. Because an ASC directs all aircraft be modified within 30 days, ASC's are not listed. When all affected aircraft are modified, the before configuration is removed from the manual, and the technical directive entry is removed from the Record of Applicable Technical Directives and entered in the Historical Record of Applicable Technical Records.

26. **TECHNICAL PUBLICATION DEFICIENCY REPORT (TPDR).**

27. The TPDR (OPNAV FORM 4790/66) is the form for reporting errors and suspected omissions in the technical manuals. Reporting procedures are in OPNAVINST 4790.2 SERIES.

28. **NAVY (AN) STANDARD/COMMON NAME NOMENCLATURE.**

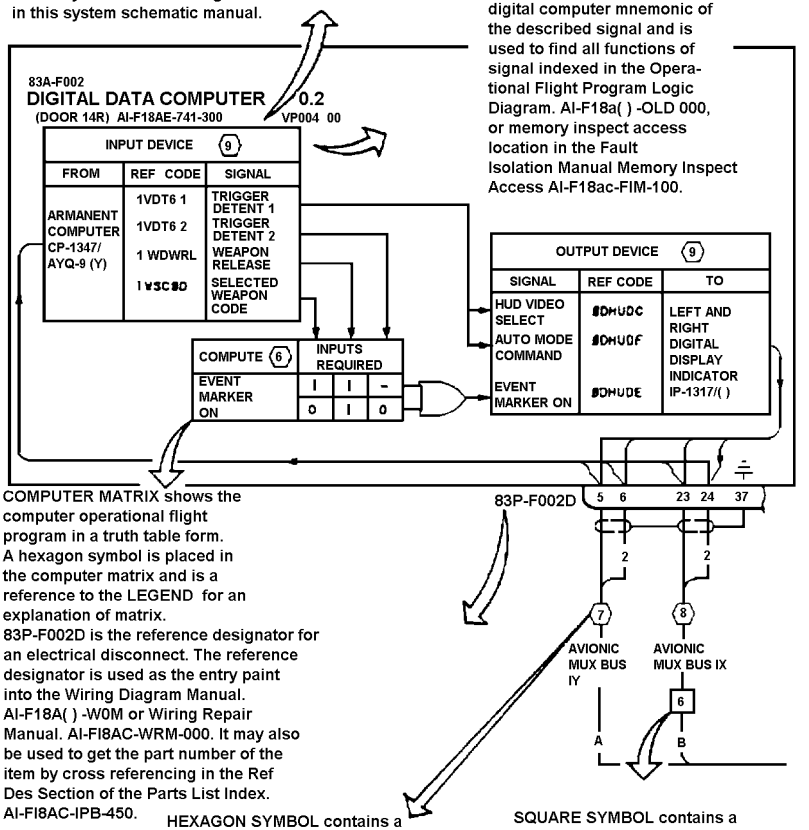
29. When an item has both Navy (AN) standard and common name nomenclature assigned, the common name nomenclature will be used in text and on illustrations. Full Navy (AN) standard nomenclature will be used in the Illustrated Parts Breakdown (IPB).

Historical Record of Applicable Technical Directives

None

A1-F18AC-741-300, WP004 00 is a reference to manual which contains component maintenence procedures. When no reference appears, the system maintenence for the component is contained in the -300 series system manual being covered in this system schematic manual.

INPUT OR OUTPUT DEVICE describes the signal, tells where signal comes from or to what component signal is sent. The REF CODE is the digital computer mnemonic of the described signal and is used to find all functions of signal indexed in the Operational Flight Program Logic Diagram. AI-F18a( ) -OLD 000, or memory inspect access location in the Fault Isolation Manual Memory Inspect Access AI-F18ac-FIM-100.



COMPUTER MATRIX shows the computer operational flight program in a truth table form. A hexagon symbol is placed in the computer matrix and is a reference to the LEGEND for an explanation of matrix.

83P-F002D is the reference designator for an electrical disconnect. The reference designator is used as the entry paint into the Wiring Diagram Manual. AI-F18A( ) -W0M or Wiring Repair Manual. AI-FI8AC-WRM-000. It may also be used to get the part number of the item by cross referencing in the Ref Des Section of the Parts List Index. AI-FI8AC-IPB-450.

HEXAGON SYMBOL contains a number. This symbol and number are used to reference the notes contained in the LEGEND.

SQUARE SYMBOL contains a number that refers to a sheet of the schematic where the circuitry is continued.

00200101

Figure 1. Schematic Highlights (Sheet 1)

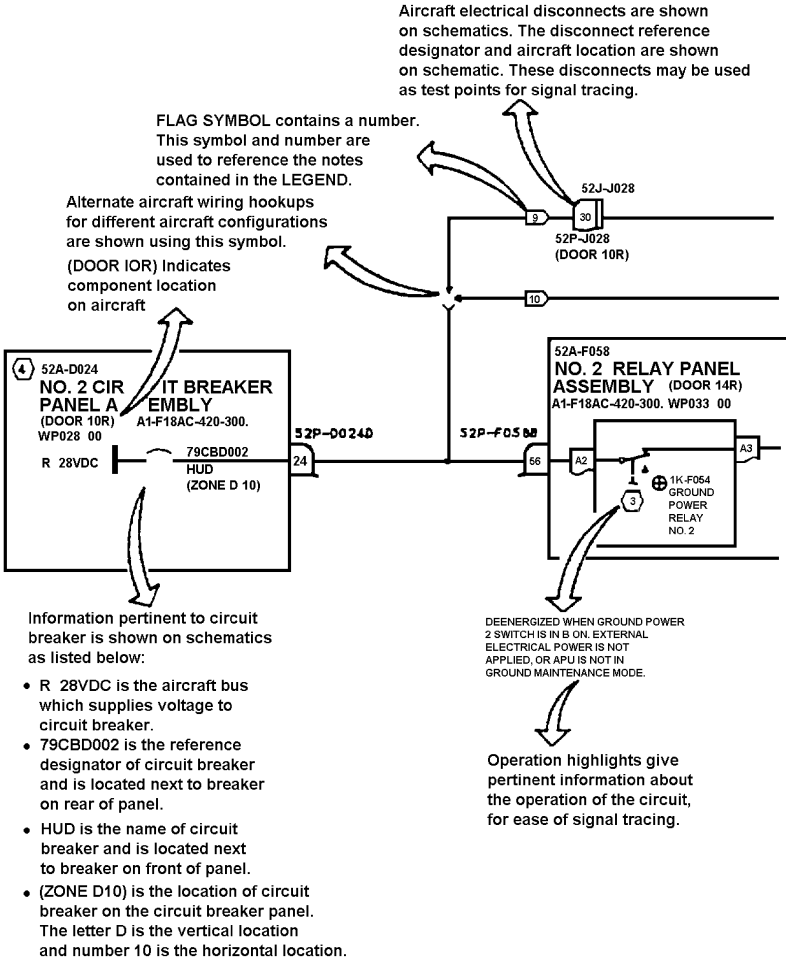


Figure 1. Schematic Highlights (Sheet 2)

The legend contains all notes pertinent to the schematic as listed below.

- NUMBER listed with no symbol is general information about the schematic.
- NONSTANDARD SYMBOLS appearing on schematic are shown or referenced with an explanation.
- ABBREVIATIONS appearing on schematic are shown or referenced with an explanation.
- HEXAGON SYMBOL refers to another schematic or manual for continuation of a circuit or an explanation of date contained on schematic.
- FLAG SYMBOL indicates limited aircraft application.



LEGEND

1. CONTINUITY TESTS:

   A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.

   B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING. IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE REPLACE WITH NEW RELAY.

   C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RXI SCALE.

   D. WHEN TESTING CONTINUITY TEST FOR:

      (1) SHORTS TO GROUND.
      (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
      (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
      (4) SHIELD CONTINUITY.

2. NONSTANDARD SYMBOLS:

   ⊕ IDENTIFIES RELAY USED TO SWITCH TO LOW LEVEL CURRENT. SEE NOTE 1.

   (3) GROUND POWER SWITCHING SCHEMATIC, A1-F18AC-420-500, WP005 00.

   (4) POWER DISTRIBUTION SCHEMATIC, A1-F18AC-420-500, WP004 00.

   (5) EXPLANATION OF MATRIX:

   A. COMPUTE COLUMN LISTS THE SIGNAL OUTPUT.

   B. INPUTS REQUIRED ARE USED TO DEVELOP THE SIGNAL OUTPUT.

   C. THE SIGNAL OUTPUT IS READ HORIZONTALLY. EACH HORIZONTAL LINE IS AN INDEPENDENT SIGNAL OUTPUT.

   D. INTERPRET MATRIX TABLE AS INDICATED:

      (1) ONE (1) INDICATES THIS INPUT AS NAMED MUST BE THERE TO GET THE OUTPUT.
      (2) ZERO (0) INDICATES THE INPUT AS NAMED MUST NOT BE THERE TO GET THE OUTPUT.
      (3) DASH (-) INDICATES THE OUTPUT DOES NOT DEPEND ON THIS INPUT.

   (6) AVIONIC MUX CHANNEL 1 SCHEMATIC, A1-F18AC-741-500, WP003 00.

   (7) AVIONIC MUX CHANNEL 2 SCHEMATIC, A1-F18AC-741-500, WP003 00.

   (8) FOR LOGIC DIAGRAMS RELATING TO REF CODE. REFER TO A1-F18AC-OLD-000. FOR MEMORY INSPECT ACCESS LOCATION RELATING TO REF CODE. REFER TO A1-F18AC-FIM-100.

   9 F/A-18A.

   10 F/A-18B.

Figure 1. Schematic Highlights (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL STORAGE SYSTEM

Reference Material

None

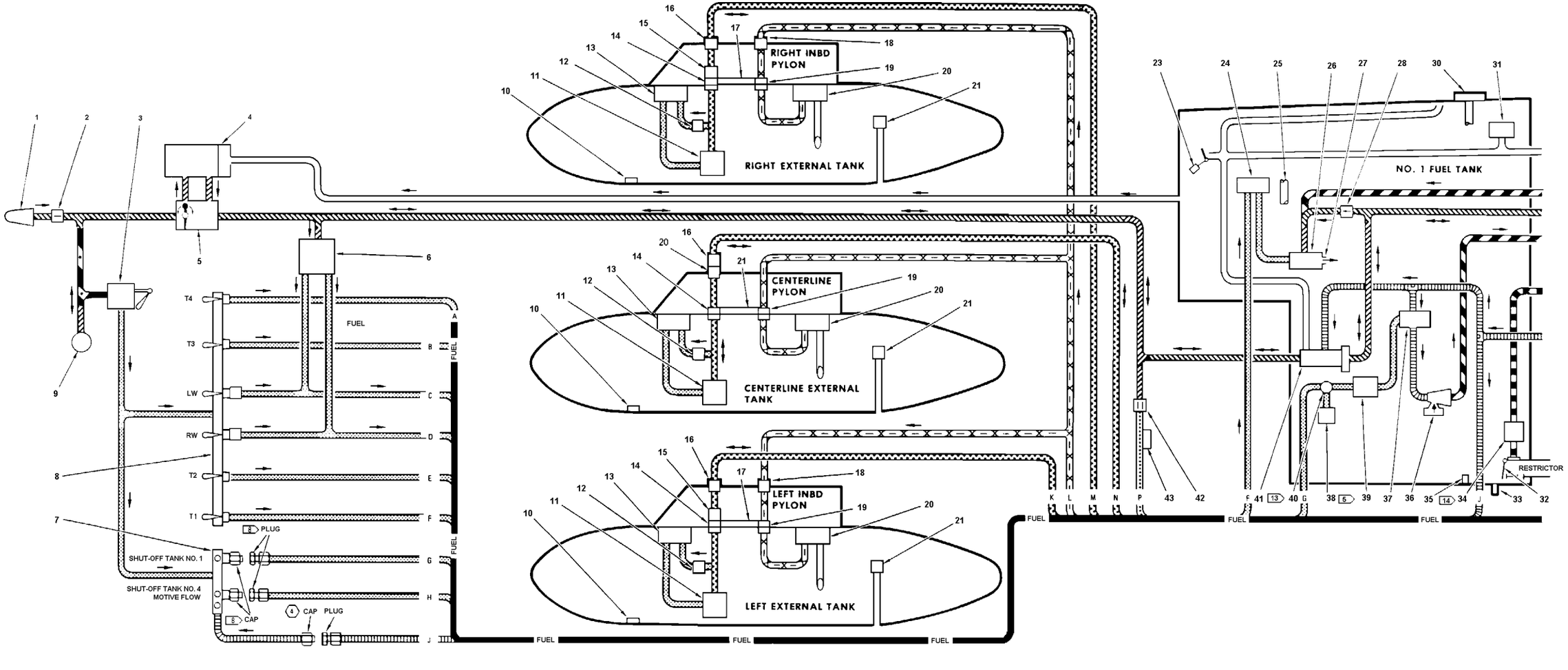
Alphabetical Index

Subject **Page No.**

Fuel Storage System Schematic, Figure 1 3

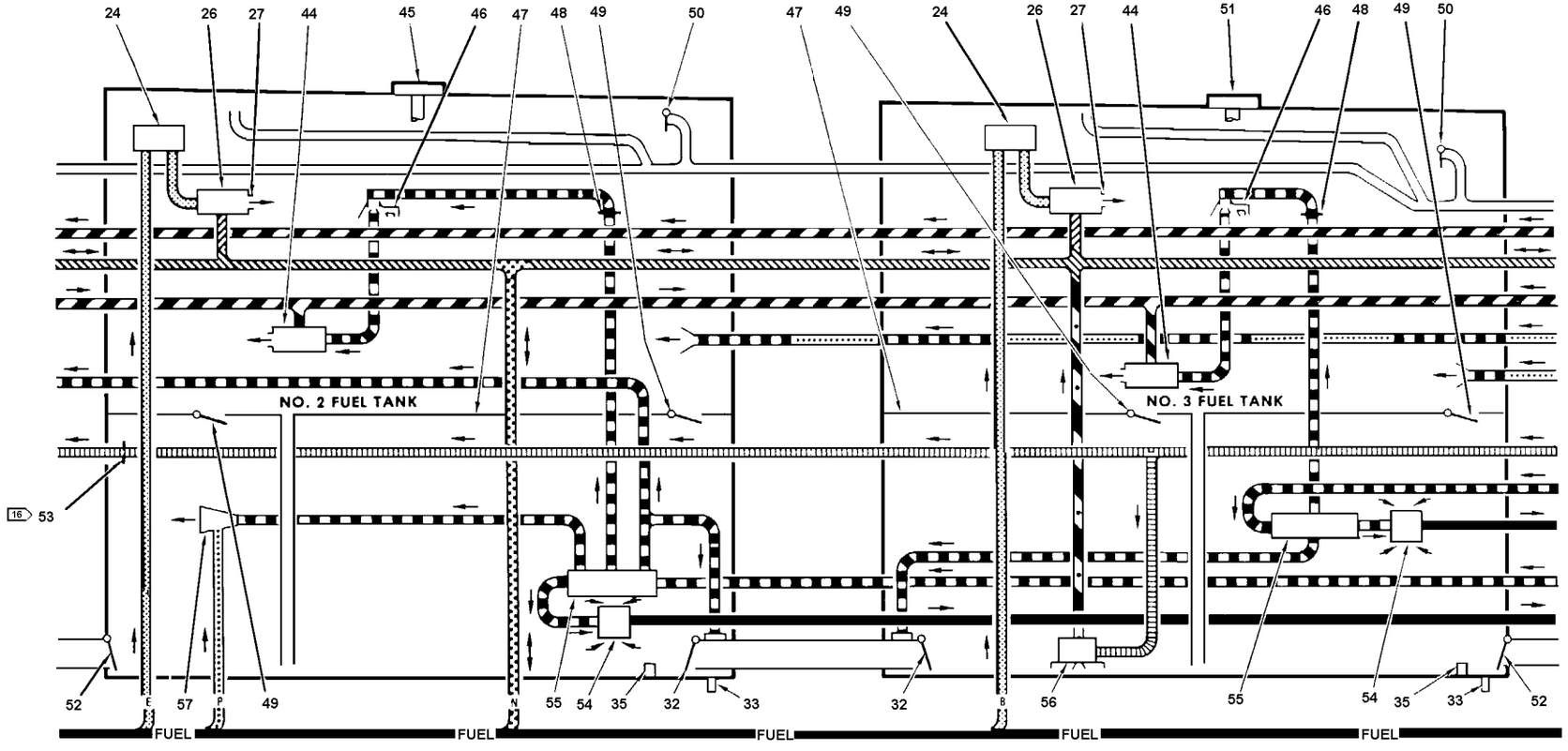
Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve, and Raised Inverted Baffle (ECP MDA-F/A-18-0055)	1 Aug 86	-
F/A-18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/ Sealing of Raised Baffle in Tank 2 and 3 (ECP MDA-F/A-18-00077)	1 Aug 86	-
F/A-18 AFC 21	-	Addition of Fuel/Air Heat Exchanger (ECP MDA-F/A-18-00033)	1 Aug 86	-
F/A-18 AFC 70	-	Incorporation of Motive Flow Boost Pump Pressure Switch (ECP MDA-F/A-18-00158R2)	1 Aug 86	-
F/A-18 IAFC 56	-	Fuel System Components Replacement and System Inspection ECP 00158 and (ECP MDA-F/A-1800160)	1 Feb 84	-
F/A-18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA-F/A-18-00072C1)	1 Nov 86	-



00300101

Figure 1. Fuel Storage System Schematic (Sheet 1)



00300102

Figure 1. Fuel Storage System Schematic (Sheet 2)

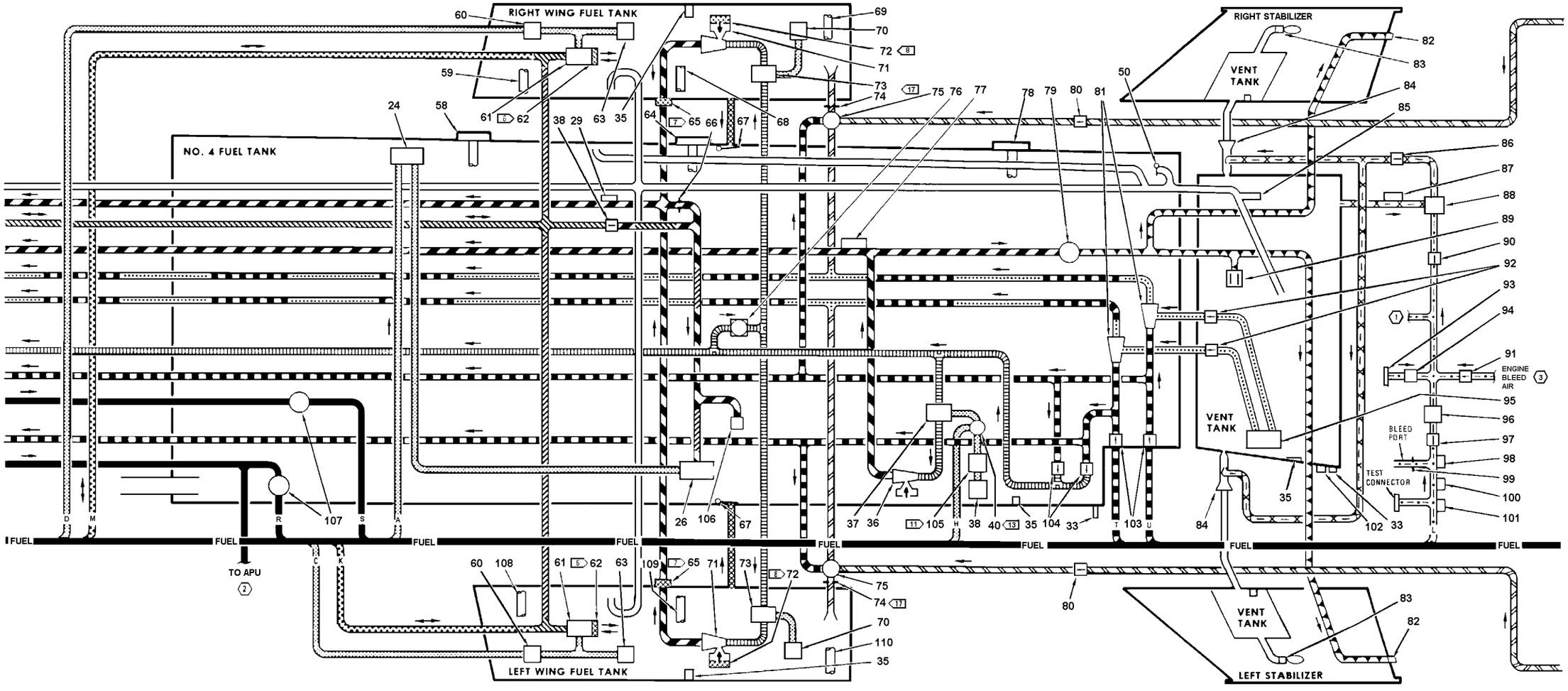
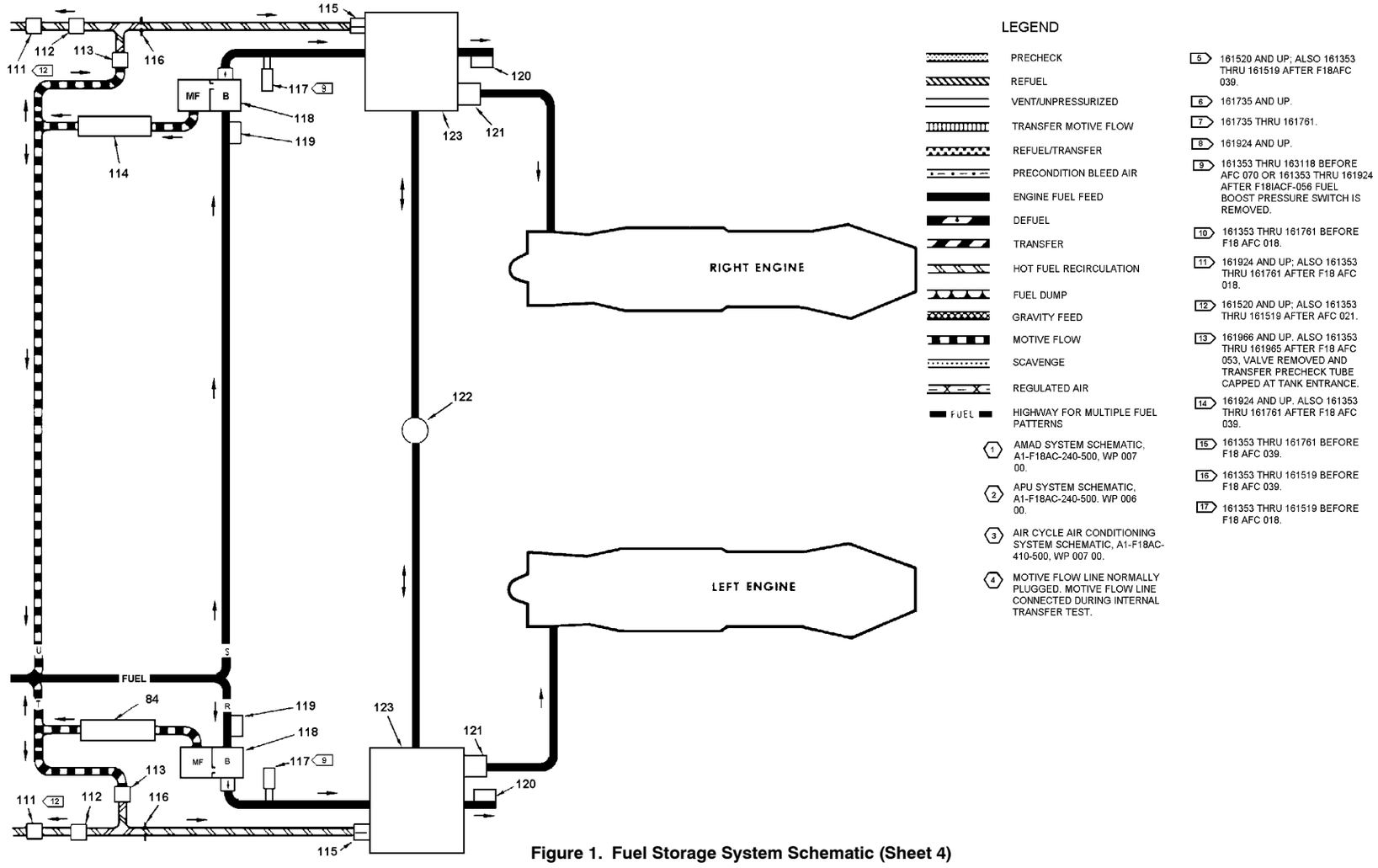


Figure 1. Fuel Storage System Schematic (Sheet 3)



00300104

Figure 1. Fuel Storage System Schematic (Sheet 4)

INDEX NO.	COMMON NAME	REF DES	LOCATION
1	INFLIGHT REFUELING PROBE NOZZLE	5VAB526	IFR PROBE WELL
2	INFLIGHT REFUELING CHECK VALVE	5VAB613	INTERNAL DOOR NBB
3	MASTER PRECHECK VALVE	5VAD624	DOOR 8
4	TANK PRESSURE/FUEL FLOW INDICATOR	5DSD625	DOOR 8
5	FUEL FLOW SENSOR	5VAD645	INTERNAL DOOR NWC
6	WING REFUEL LOCKOUT VALVE	5L-F116	DOOR 10B
7	FUEL LEVEL CONTROL SELECTOR VALVE	5VAG579	NLG WHEELWELL
8	INDIVIDUAL TANK PRECHECK VALVE	5VAF627	DOOR 141 L/R
9	GROUND REFUEL/DEFUEL RECEPTACLE	5VAD626	DOOR 8
10	DRAIN VALVE	5VAY628	EXT TANK
11	REFUEL/TRANSFER SHUTOFF VALVE	5L-Y061	EXT TANK
12	MANUAL PRECHECK VALVE	5VAY631	EXT TANK
13	FUEL LEVEL CONTROL PILOT VALVE	5L-Y060	EXT TANK
14	EXTERNAL TANK TO PYLON FUEL PROBE	5VAY637	EXT TANK
15	FLAME ARRESTOR	5VAR525	DOOR 27
			LEFT WING PYLON
			RIGHT WING PYLON
16	WING FUEL COUPLING VALVE	5VAU575	LEFT WING
		5VAV576	RIGHT WING
17	FUEL/AIR COUPLING VALVE	5VAW623	LEFT WING PYLON
			RIGHT WING PYLON
18	WING AIR COUPLING VALVE	5VAU577	LEFT WING
		5VAV578	RIGHT WING
19	EXTERNAL TANK TO PYLON AIR PROBE	5VAY642	EXT TANK
20	PRESSURIZATION AND VENT VALVE	5VAY630	EXT TANK
21	EXTERNAL TANK OVERPRESSURE RELIEF VALVE	5VAY641	EXT TANK
21	FUEL/AIR COUPLING VALVE	5VAZ629	CENTERLINE PYLON
22	FUEL COUPLING VALVE	5VAR522	DOOR 27
23	CLIMB CHECK VALVE	5VAP531	TANK 1
24	HIGH FUEL LEVEL PILOT VALVE	5VAP539	TANK 1
		5VAP594	TANK 2
		5VAP583	TANK 3
		5VAP556	TANK 4
25	FUEL QUANTITY TRANSMITTER	5A-F028	DOOR 18 (F/A-18A)
		5A-E028	REAR COCKPIT (F/A-18B)
26	FUEL LEVEL CONTROL SHUTOFF VALVE	5VAP541	TANK 1
		5VAP596	TANK 2
		5VAP610	TANK 3
		5VAP569	TANK 4
27	SHUTOFF VALVE RESTRICTOR	5RAP661	TANK 1
		5RAP662	TANK 2
		5RAP663	TANK 3
28	REFUEL/TRANSFER CHECK VALVE	5VAP532	TANK 1
		5VAP557	TANK 4
29	WING TRANSFER PRESSURE TRANSDUCER	5MTR125	DOOR 41R
30	FUEL QUANTITY TRANSMITTER	5A-F029	DOOR 18 (F/A-18A) OR REAR COCKPIT (F/A-18B)
31	DIVE VENT CHECK VALVE	5VAP530	TANK 1
32	PRESSURE OPERATED INTERCONNECT VALVE	15 5VAP538	TANK 1
		14 5S-E172	TANK 2
		5S-R132	TANK 3
33	CAVITY DRAIN	5S-R131	TANK 1
			TANK 2
		5L-E171	TANK 3
			TANK 4
			VENT TANK
14 34	FUEL LOW LEVEL SHUTOFF VALVE	5L-E171	TANK 1
35	TANK DRAIN	5VAP614	TANK 1
		5VAP615	TANK 2
		5VAP616	TANK 3
		5VAP586	TANK 4
		5VAS619	VENT TANK
		5VAU617	LEFT WING
		5VAV618	RIGHT WING

INDEX NO.	COMMON NAME	REF DES	LOCATION
36	FUSELAGE TRANSFER JET EJECTOR	5BAP536	TANK 1
		5BAP567	TANK 4
37	TRANSFER MOTIVE FLOW SHUTOFF VALVE	5VAP534	TANK 1
		5VAP565	TANK 4
38	TRANSFER LOW LEVEL PILOT VALVE	5VAP537	TANK 1
		5VAP519	TANK 4
5 39	TRANSFER CONTROL VALVE	5L-F160	TANK 1
13 40	FUEL TRANSFER PRECHECK VALVE	5VAP606	TANK 1
		5VAP588	TANK 4
41	REFUEL/DEFUEL SHUTOFF VALVE	5VAP533	TANK 1
42	SCAVENGE CONTROL VALVE	5VAD622	DOOR 35R
43	REFUEL SCAVENGE LINE PRESSURE TRANSDUCER	5MTF140	DOOR 35R
44	TRANSFER SHUTOFF VALVE	5VAP597	TANK 2
		5VAP605	TANK 3
45	FUEL QUANTITY TRANSMITTER	5A-R030	DOOR 26
46	FUEL LEVEL SENSOR	5VAP595	TANK 2
		5VAP590	TANK 3
47	INVERTED FLIGHT BAFFLE	5CAP516	TANK 2
		5CAP517	TANK 3
48	JET LEVEL SENSOR TUBE RESTRICTOR	5RAP667	TANK 2
		5RAP668	TANK 3
49	INVERTED FLIGHT CHECK VALVES		TANK 2 AND 3
50	DIVE VENT CHECK VALVE	5VAP593	TANK 2
		5VAP582	TANK 3
		5VAP555	TANK 4
51	FUEL QUANTITY TRANSMITTER	5A-R031	DOOR 31
52	GRAVITY FEED CHECK VALVES	5VAP600	TANK 2
		5VAP608	TANK 3
16 53	FUEL TRANSFER RESTRICTOR	5RAP659	TANK 2
54	10 ENGINE FEED JET EJECTOR	5BAP599	TANK 2
	11 ENGINE FUEL TURBINE BOOST PUMP	5VAP679	TANK 2
	10 ENGINE FEED JET EJECTOR	5BAP591	TANK 3
	11 ENGINE FUEL TURBINE BOOST PUMP	5BAR680	TANK 3
55	WASH FILTER	5FAP632	TANK 2
		5FAP633	TANK 3
56	DEFUEL VALVE	5VAP521	TANK 3
57	REFUELING MANIFOLD SCAVENGE JET EJECTOR	5BAP598	TANK 2
58	FUEL QUANTITY TRANSMITTER	5A-R032	DOOR 40
59	INBD FUEL QUANTITY TRANSMITTER	5A-V043	DOOR 34R
60	WING HIGH LEVEL REFUEL/DEFUEL PILOT VALVE	5VAV574	DOOR 34R
		5VAU573	DOOR 34L
61	WING REFUEL/DEFUEL SHUTOFF VALVE	5VAV554	DOOR 76R
		5VAU553	DOOR 76L
6 62	WING REFUEL/DEFUEL STRAINER	5FAV684	RIGHT WING
		5FAU683	LEFT WING
63	WING LOW LEVEL REFUEL/DEFUEL PILOT VALVE	5VAV552	DOOR 77R
		5VAU551	DOOR 77L
64	FUEL QUANTITY TRANSMITTER	5A-R033	DOOR 43
7 65	FUEL TRANSFER STRAINER	5FAV682	RIGHT WING
		5FAU681	LEFT WING
66	FUEL TRANSFER RESTRICTOR	5RAP660	TANK 4
67	WING GRAVITY FEED CHECK VALVES	(R)5VAR588	TANK 4
		(L)5VAP587	TANK 4
68	CENTER FUEL QUANTITY TRANSMITTER	5A-V042	DOOR 76R
69	OUTBD FUEL QUANTITY TRANSMITTER	5A-V041	DOOR 77R
70	WING TRANSFER MOTIVE FLOW PILOT VALVE	5VAV529	DOOR 106R
		5VAU528	DOOR 106L
71	WING TRANSFER EJECTOR	5BAV549	DOOR 77R
		5BAU548	DOOR 77L
8 72	WING TRANSFER JET EJECTOR STRAINER	5FAV686	RIGHT WING
		5FAU685	LEFT WING
73	WING TRANSFER MOTIVE FLOW SHUTOFF VALVE	5VAV544	DOOR 77R
		5VAU543	DOOR 77L
17 74	HOT FUEL RECIRCULATION WING RESTRICTOR	5RAP657	DOOR 41L
		5RAR658	DOOR 41R
75	DIVERTER VALVE	5L-R118	TANK 4
		5L-P119	TANK 4
76	WING DAMAGE FUEL SHUTOFF VALVE	5L-R110	TANK 4
77	FUSELAGE TRANSFER PRESSURE TRANSDUCER	5MTP126	DOOR 41L
78	FUEL QUANTITY TRANSMITTER	5A-R034	DOOR 49

INDEX NO.	COMMON NAME	REF DES	LOCATION
79	DUMP VALVE	5B-P069	TANK 4
80	HOT FUEL RECIRCULATION CHECK VALVES	5VAP585	DOOR 53L
		5VAR584	DOOR 53R
81	VENT TANK SCAVENGE EJECTORS	5BAP559	TANK 4
		5BAR560	TANK 4
82	DUMP LINE FLAME ARRESTOR		
	LEFT	5MPS502	LEFT STABILIZER
	RIGHT	5MPT503	RIGHT STABILIZER
83	VENT LINE FLAME ARRESTOR		
	LEFT	5MPS504	LEFT STABILIZER
	RIGHT	5MPT505	RIGHT STABILIZER
84	VENT SYSTEM AIR PUMP		
	LEFT	5BAS511	COVER 63L
	RIGHT	5BAT512	COVER 63R
85	SIPHON BREAKER CHECK VALVE	5VAS545	VENT TANK
86	INTERNAL AIR PRESSURIZATION CHECK VALVE	5VAT513	DOOR 63R
87	AIR PRESSURE SWITCH	5S-T106	DOOR 63R
88	INTERNAL FUEL TANKS PRESSURE REGULATOR	5L-T104	DOOR 63R
89	DUMP LINE AUTOMATIC DRAIN VALVE	5VAS518	VENT TANK
90	BLEED AIR CHECK VALVE	5VAT507	DOOR 63R
91	BLEED AIR CHECK VALVE	5VAT506	DOOR 42
92	SCAVENGE FUEL CHECK VALVES	(L)5VAS602	VENT TANK
		(R)5VAT612	VENT TANK
93	GROUND AIR PRESSURIZATION CONNECTOR	5PAP636	L MLG WHEELWELL
94	GROUND AIR PRESSURIZATION FILTER	5FAP638	L MLG WHEELWELL
95	SCAVENGE PUMP INLET SCREEN	5FAS604	VENT TANK
96	EXTERNAL TANKS AIR PRESSURE REGULATOR	5L-P102	DOOR 42
97	EXTERNAL AIR PRESSURIZATION CHECK VALVE	5VAR620	DOOR 42
98	5PSI EXTERNAL TANK AIR PRESSURE SWITCH	5S-P151	L MLG WHEELWELL
99	EXTERNAL FUEL SYSTEM PRESSURIZATION BLEED ORIFICE	5VAP654	L MLG WHEELWELL
100	34PSI EXTERNAL TANK AIR PRESSURE SWITCH	5S-P152	L MLG WHEELWELL
101	EXTERNAL TANKS AIR PRESSURE TRANSDUCER	5MTR130	DOOR 42
102	VENT TANK PRESSURE TRANSDUCER	5MTT129	INTERNAL DOOR EBA
103	MOTIVE FLOW CHECK VALVES	5VAP561	TANK 4
		5VAR562	TANK 4
104	TRANSFER MOTIVE FLOW CHECK VALVES	5VAP563	TANK 4
		5VAR564	TANK 4
11 105	TANK 4 TRANSFER SHUTOFF VALVE	5L-R167	TANK 4
106	AUTOMATIC DRAIN VALVE	5VAP568	TANK 4
107	RIGHT AND LEFT ENGINE FUEL SHUTOFF VALVES	5B-P072	L MLG WHEELWELL
		5B-R070	R MLG WHEEL WELL
108	INBD FUEL QUANTITY TRANSMITTER	5A-U039	DOOR 34L
109	CENTER FUEL QUANTITY TRANSMITTER	5A-U038	DOOR 76L
110	OUTBD FUEL QUANTITY TRANSMITTER	5A-U037	DOOR 77L
12 111	FUEL/AIR HEAT EXCHANGER		
	LEFT	5MPP670	MISSILE FAIRING
	RIGHT	5MPR671	MISSILE FAIRING
112	RIGHT HYDRAULIC OIL/FUEL HEAT EXCHANGER	10HPR519	DOOR 53R
	LEFT HYDRAULIC OIL/FUEL HEAT EXCHANGER	10HPP518	DOOR 53L
113	RIGHT AMAD OIL/FUEL HEAT EXCHANGER	3HPR520	DOOR 53R
	LEFT AMAD OIL/FUEL HEAT EXCHANGER	3HPP519	DOOR 53L
114	HEAT EXCHANGERS WASH FILTER	5FAP647	DOOR 53L
		5FAR648	DOOR 53R
115	RIGHT OIL/FUEL HEAT EXCHANGER CHECK VALVE	5VAT524	DOOR 53R
	LEFT OIL/FUEL HEAT EXCHANGER CHECK VALVE	5VAS523	DOOR 53L
116	HOT FUEL RECIRCULATION RESTRICTOR TUBE	5RAP655	DOOR 53L
		5RAR656	DOOR 53R
9 117	RIGHT ENGINE FUEL BOOST PRESSURE SWITCH	5S-P113	DOOR 138L
	LEFT ENGINE FUEL BOOST PRESSURE SWITCH	5S-R114	DOOR 53R
118	RIGHT MOTIVE FLOW/BOOST PUMP	5BAT514	DOOR 53R
	LEFT MOTIVE FLOW/BOOST PUMP	5BAS515	DOOR 53L
119	RIGHT BOOST INLET PRESSURE TRANSDUCER	5MTR128	R MLG WHEELWELL
	LEFT BOOST INLET PRESSURE TRANSDUCER	5MTP127	L MLG WHEELWELL
120	RIGHT ENGINE FUEL TEMPERATURE SENSOR	5TCR112	DOOR 53R
	LEFT ENGINE FUEL TEMPERATURE SENSOR	5TCP111	DOOR 53L
121	RIGHT ENGINE FUEL COUPLING CHECK VALVE	5VAR640	DOOR 64R
	LEFT ENGINE FUEL COUPLING CHECK VALVE	5VAP639	DOOR 64L
122	CROSS FEED SHUTOFF VALVE	5B-P071	DOOR 53L
123	CROSS FEED MANIFOLD		DOOR 53L
			DOOR 53R

00300105

Figure 1. Fuel Storage System Schematic (Sheet 5)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

REFUEL/DEFUEL SYSTEM

Title	WP Number
Refuel/Defuel System Component Locator	004 01
Refuel/Defuel System 161353 THRU 161761 BEFORE F18 AFC 39	004 02
Refuel/Defuel System 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39	004 03

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

REFUEL/DEFUEL SYSTEM

COMPONENT LOCATOR

Reference Material

None

Alphabetical Index

Subject	Page No.
Refuel/Defuel System Component Locator, Figure 1	2

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA-F18-00054C1)	1 Nov 86	-
F18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA F18-00072C1)	1 Nov 86	-

NOMENCLATURE	INDEX NO.	REF DES
DEFUEL VALVE	17	5VAP521
EXTERNAL FUEL TANK LEVEL CONTROL PILOT VALVE	36	5L-Y060
MANUAL PRECHECK VALVE	37	5VAY631
REFUEL/TRANSFER SHUTOFF VALVE	38	5L-Y061
EXT LT CONTROL PANEL ASSEMBLY INTR WING SWITCH	1	52A-H091 5S-H026
FUEL CHECK PANEL 7 L EXT FTK CHK SWITCH 7 C EXT FTK CHK SWITCH 7 R EXT FTK CHK SWITCH 4 EXT TK PRCHK SW	30	5A-B019 5S-B022 5S-B021 5S-B020 5S-B020
FUEL SYSTEM CONTROL PANEL EXT TANKS - CTR SWITCH EXT TANKS - WING SWITCH	2	5A-H027 5S-H018 5S-H017
INDIVIDUAL TANK PRECHECK VALVE	33	5VAF627
MASTER PRECHECK VALVE	31	5VAD624
NO. 1 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE	8	5VAP541
NO. 1 FUEL TANK HIGH LEVEL PILOT VALVE	4	5VAP539
4 NO. 1 FUEL TANK FUEL LOW LEVEL SHUTOFF VALVE	6	5L-E171
NO. 1 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE	7	5VAP538 7 5S-E172 4
NO. 1 FUEL TANK REFUEL/TRANSFER CHECK VALVE	5	5VAP532
NO. 2 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE	11	5VAP596
NO. 2 FUEL TANK HIGH LEVEL PILOT VALVE	10	5VAP594
NO. 2 FUEL TANK INTERCONNECT CHECK VALVE	13	5VAP600
NO. 2 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE	12	5S-R132
NO. 3 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE	15	5VAP610
NO. 3 FUEL TANK HIGH LEVEL PILOT VALVE	16	5VAP583

LEGEND

1. AIRCRAFT CONNECTOR LOCATIONS ARE SHOWN IN A1-F18AC-00-WDM-000.

2 161353 THRU 161528 BEFORE F18 AFC 041.

3 161702 AND UP; ALSO 161353 THRU 161528 AFTER F18 AFC 041.

4 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 039.

5 161353 THRU 161519.

6 161520 AND UP.

7 161353 THRU 161761 BEFORE F18 AFC 039.

8 161353 THRU 161528.

9 161702 AND UP.

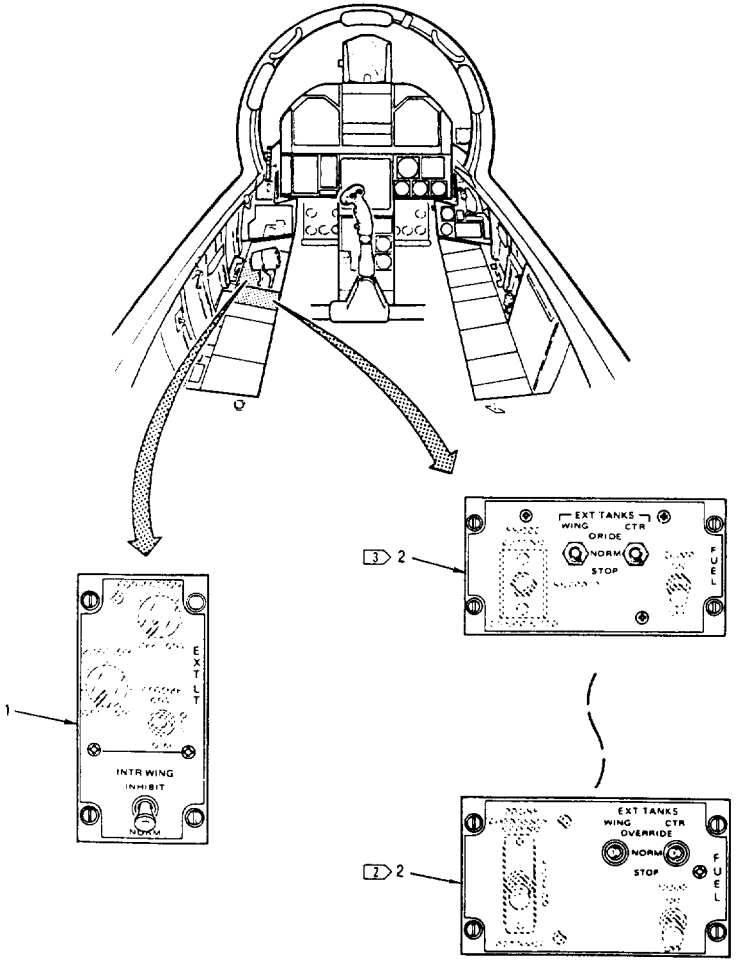
04010101

Figure 1. Refuel/Defuel System Component Locator (Sheet 1)

NOMENCLATURE	INDEX NO.	REF DES
NO. 3 FUEL TANK INTERCONNECT CHECK VALVE	18	5VAP608
NO. 3 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE	19	5S-R131
NO. 4 FUEL TANK AUTOMATIC DRAIN VALVE	22	5VAP568
NO. 4 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE	21	5VAP569
NO. 4 FUEL TANK HIGH LEVEL PILOT VALVE	20	5VAP556
NO. 4 FUEL TANK REFUEL/TRANSFER CHECK VALVE	23	5VAP557
NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY	3	52A-C159
PYLON AIR PROBE	34	5VAY642
PYLON FUEL PROBE	35	5VAY637
REFUEL/DEFUEL SHUTOFF VALVE	9	5VAP533
REFUEL SCAVENGE LINE PRESSURE TRANSDUCER	27	5MTF140
REFUELING MANIFOLD SCAVENGE JET EJECTOR	14	5BAP598
SCAVENGE CONTROL VALVE	28	5VAD622
TANK PRESSURE/FUEL FLOW INDICATOR	29	5DSD625
WING HIGH LEVEL REFUEL/DEFUEL PILOT VALVE LEFT RIGHT	26	 5VAU573 5VAV574
WING LOW LEVEL REFUEL/DEFUEL PILOT VALVE LEFT RIGHT	25	 5VAU551 5VAV552
WING REFUEL/DEFUEL SHUTOFF VALVE LEFT RIGHT	24	 5VAU553 5VAV554
WING REFUEL LOCKOUT VALVE	32	5L-F116

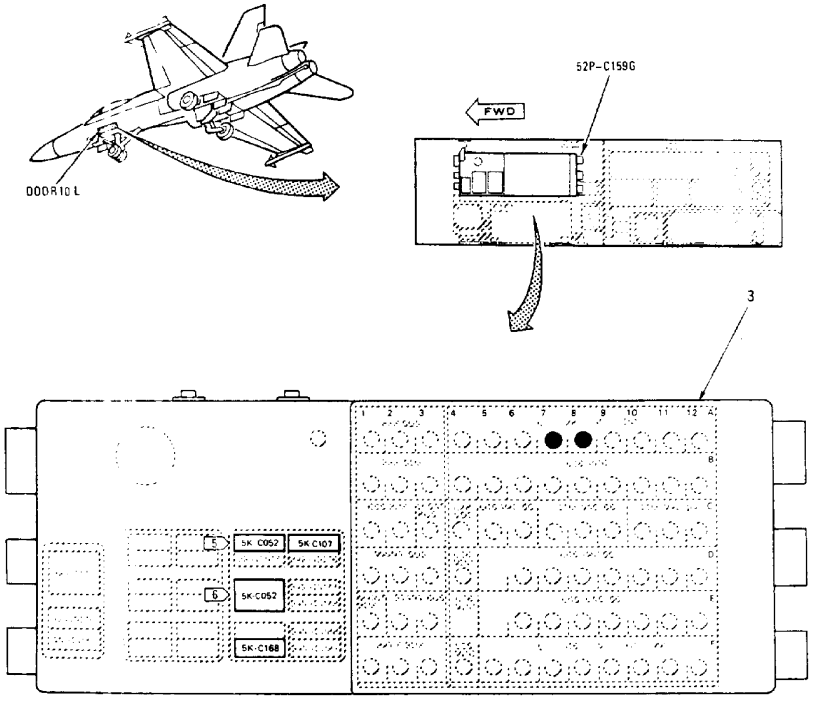
04010102

Figure 1. Refuel/Defuel System Component Locator (Sheet 2)



04010103

Figure 1. Refuel/Defuel System Component Locator (Sheet 3)



52A-C159

52A-C159 NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
A7	5CBC115	WING FUEL	L 28VDC
A8	5CBC016	EXT FUEL TK CONT	L 28VDC
	5K-C052	FUEL LOW LEVEL RELAY NO. 2	
	5K-C107	EXTERNAL TANK REFUEL CONTROL RELAY	
	4 5K-C168	EXTERNAL TANK PRECHECK RELAY	

04010104

Figure 1. Refuel/Defuel System Component Locator (Sheet 4)

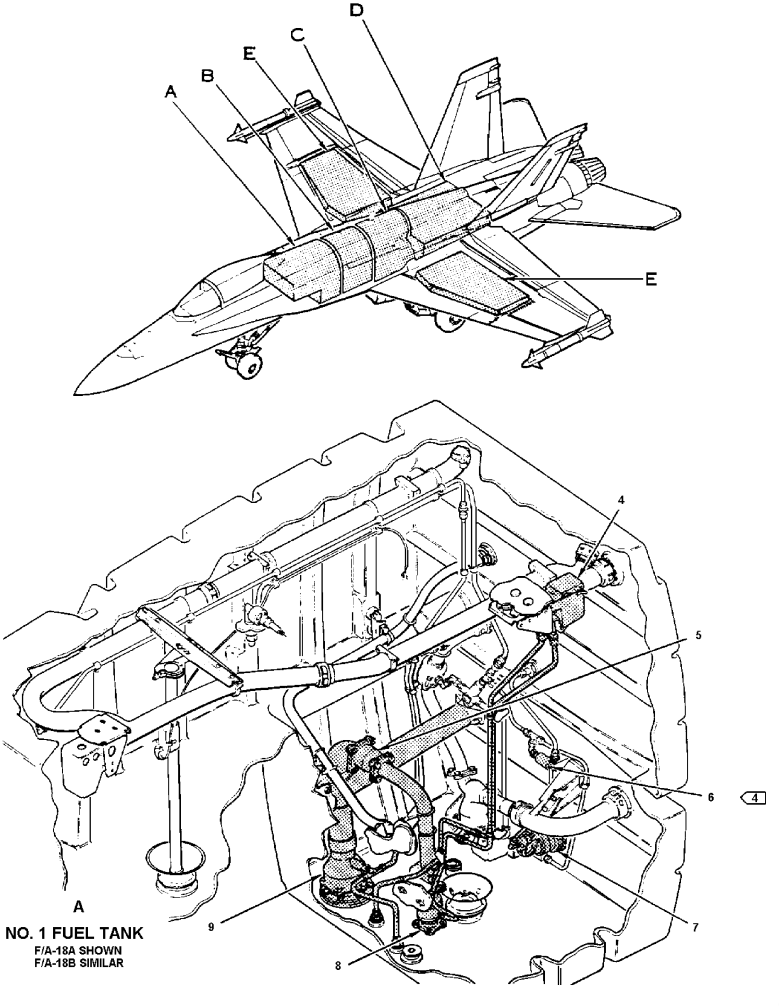


Figure 1. Refuel/Defuel System Component Locator (Sheet 5)

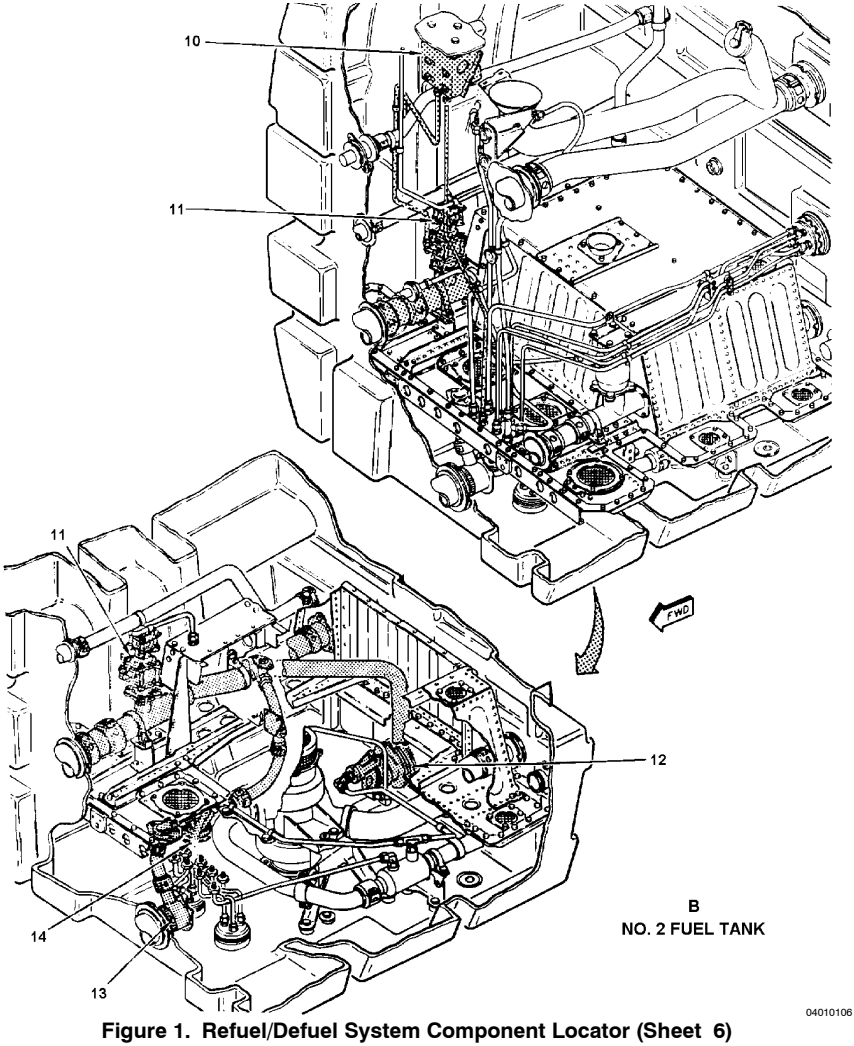


Figure 1. Refuel/Defuel System Component Locator (Sheet 6)

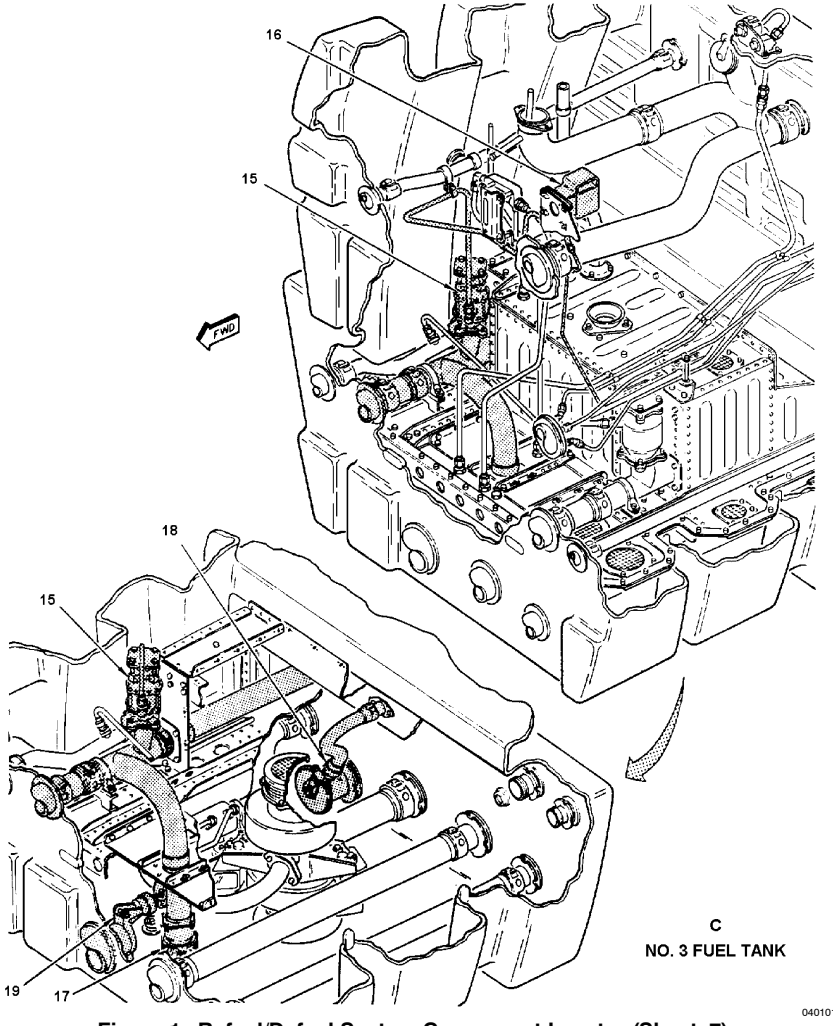


Figure 1. Refuel/Defuel System Component Locator (Sheet 7)

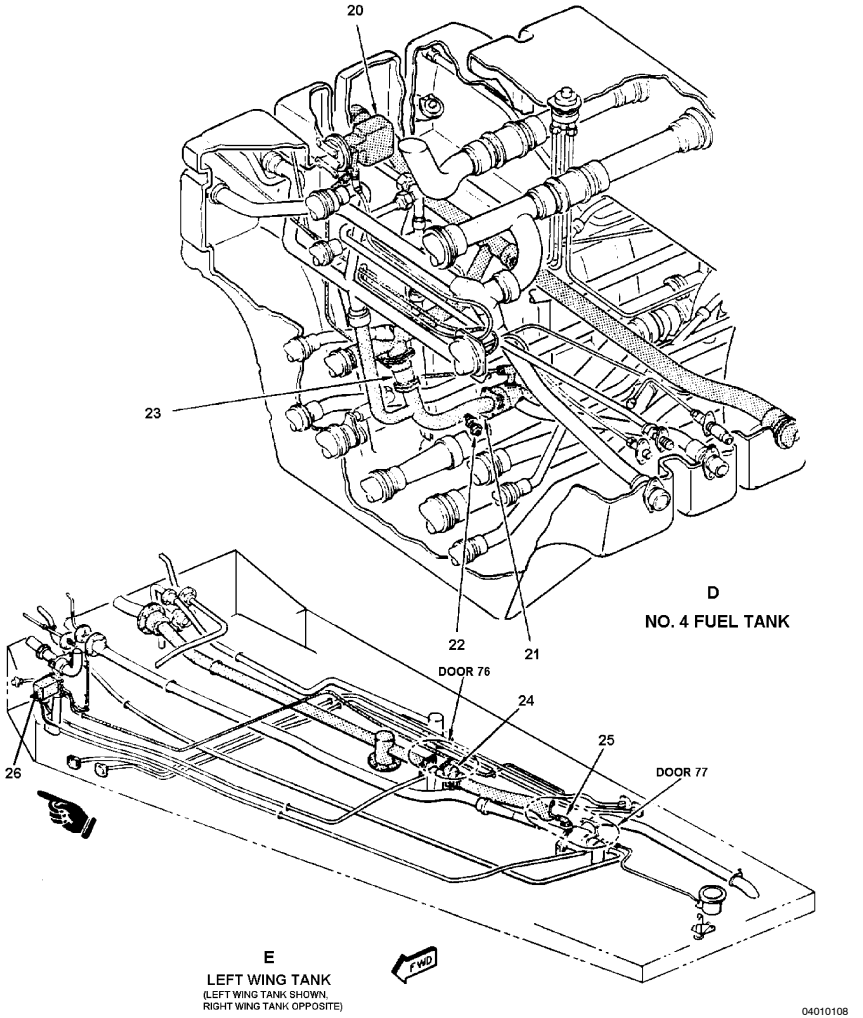
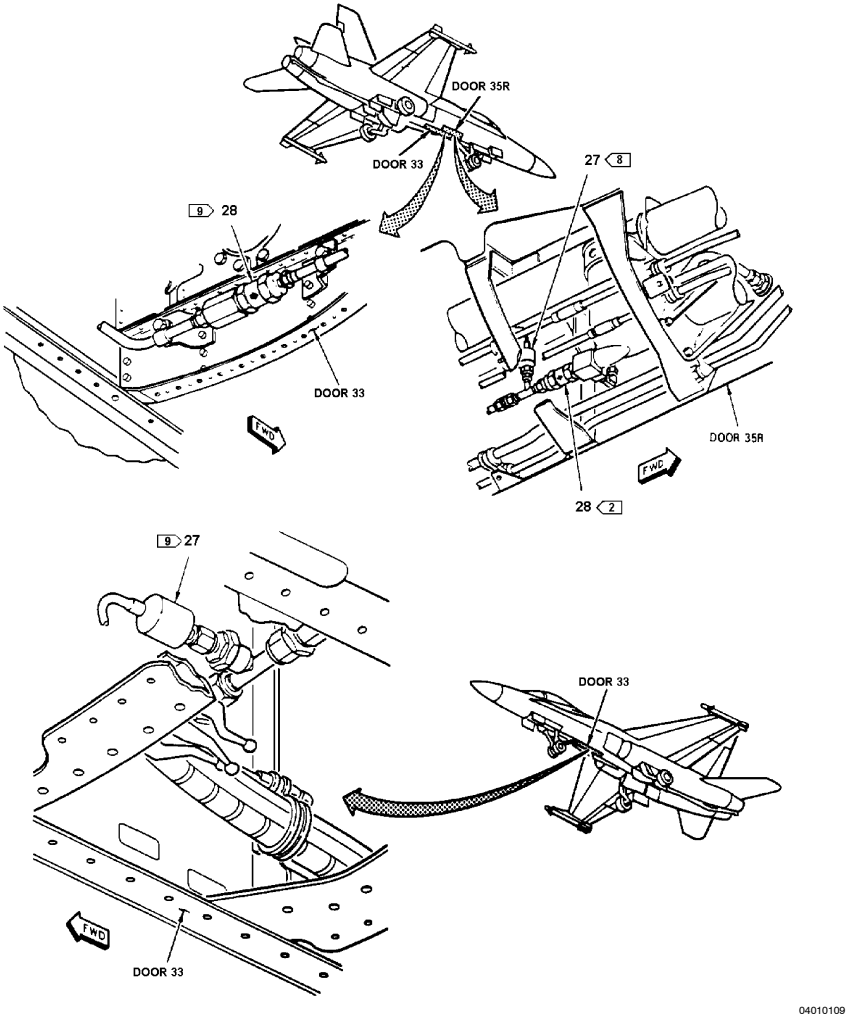


Figure 1. Refuel/Defuel System Component Locator (Sheet 8)



04010109

Figure 1. Refuel/Defuel System Component Locator (Sheet 9)

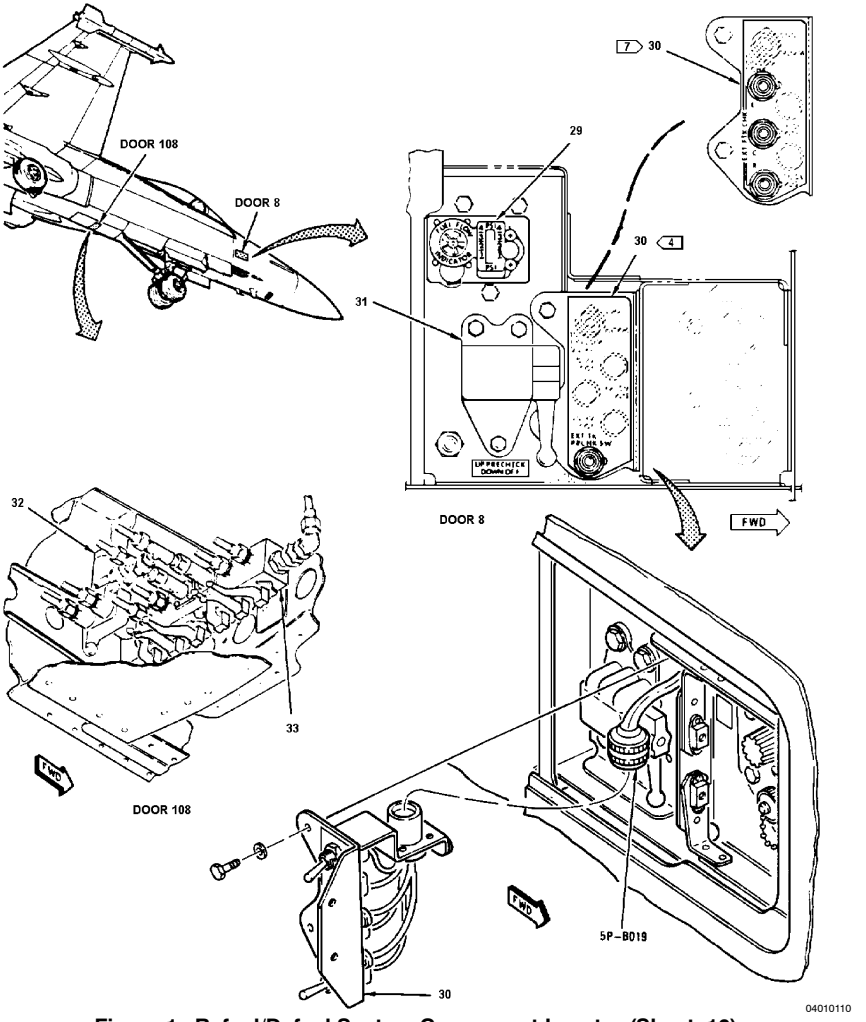
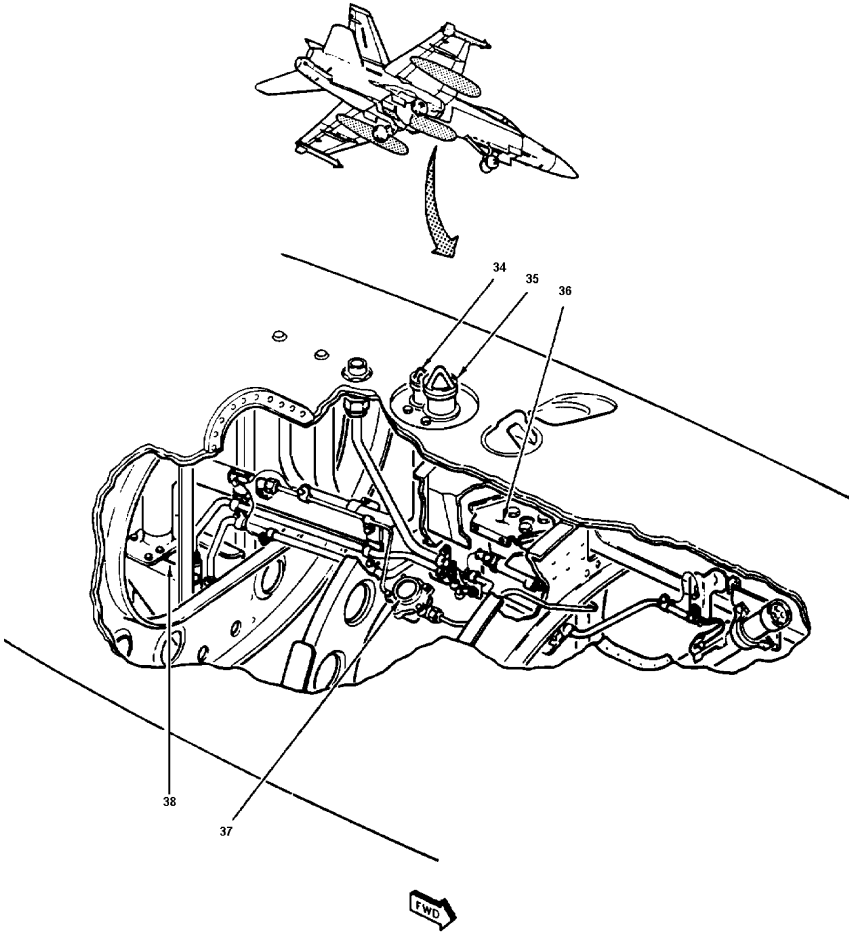


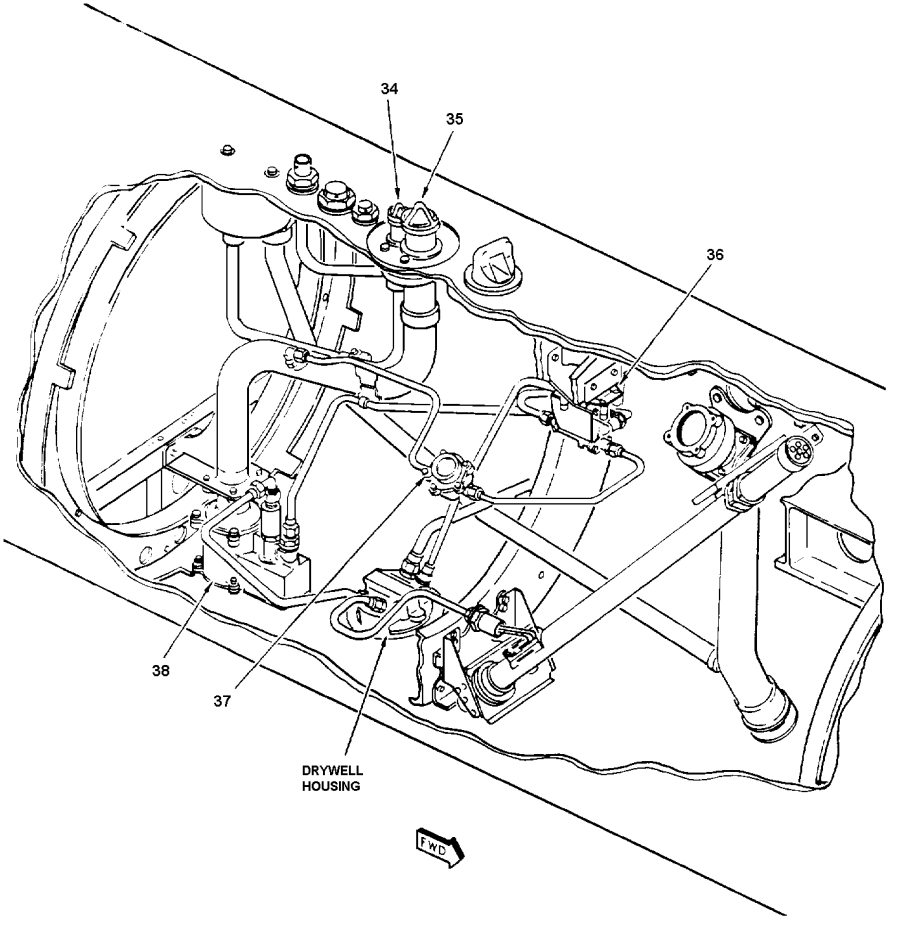
Figure 1. Refuel/Defuel System Component Locator (Sheet 10)



AIRCRAFT FUEL TANK FPU-6/A (ELLIPTICAL)

04010111

Figure 1. Refuel/Defuel System Component Locator (Sheet 11)



AIRCRAFT FUEL TANK FPU-8/A (CYLINDRICAL)

04010112

Figure 1. Refuel/Defuel System Component Locator (Sheet 12)

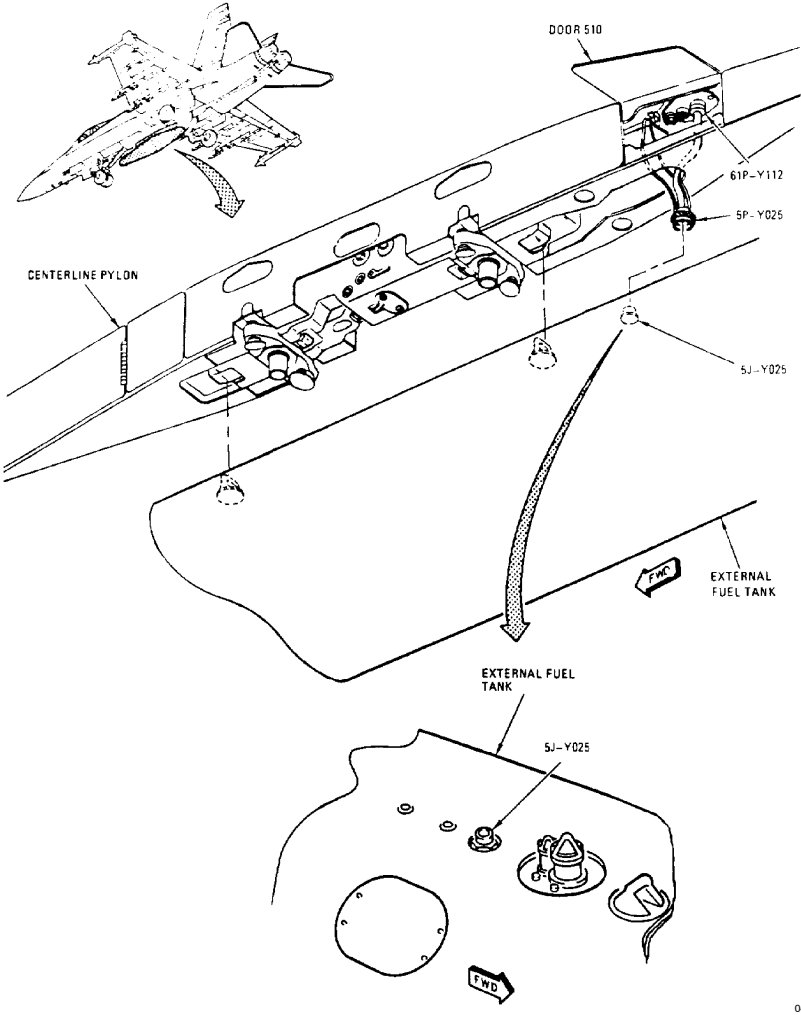


Figure 1. Refuel/Defuel System Component Locator (Sheet 13)

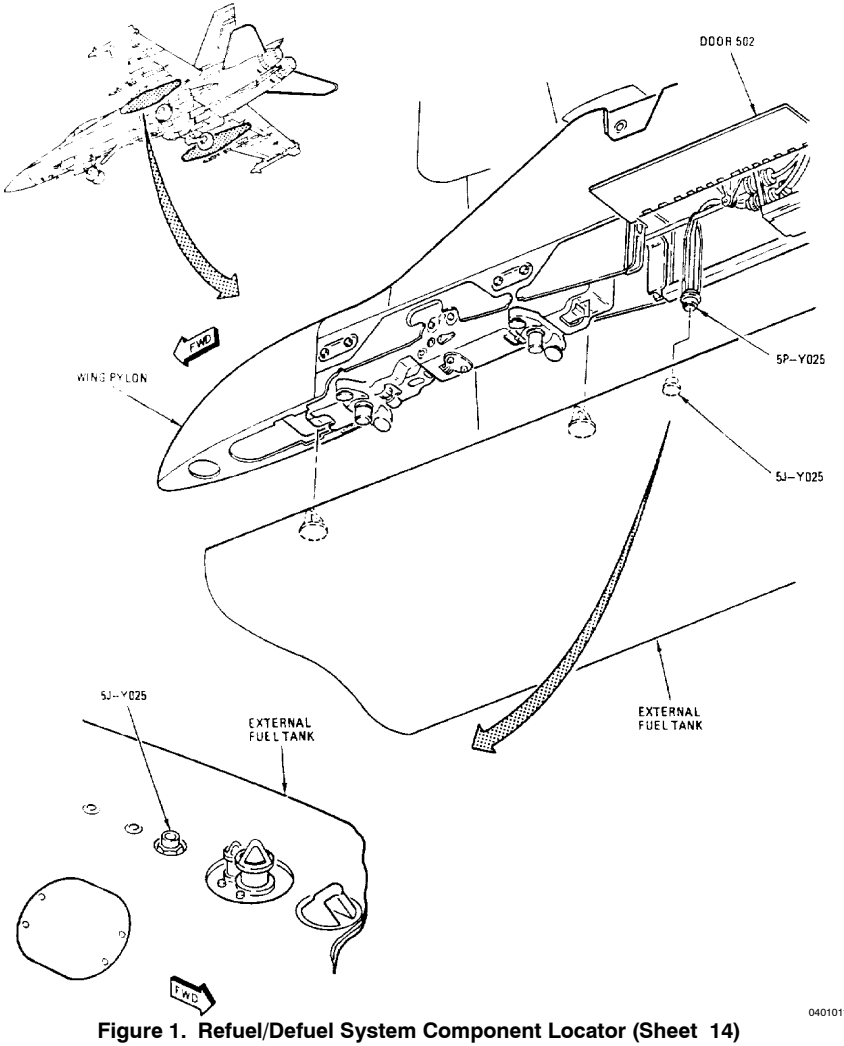


Figure 1. Refuel/Defuel System Component Locator (Sheet 14)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

REFUEL/DEFUEL SYSTEM

EFFECTIVITY: 161353 THRU 161761 BEFORE F/A-18 AFC 39

Reference Material

None

Alphabetical Index

Subject	Page No.
Refuel/Defuel System Schematic, Figure 1	2

Record of Applicable Technical Directives

None

LEGEND

TRANSFER MOTIVE FLOW

REFUEL

DEFUEL

MOTIVE FLOW

SCAVENGE

VENT

REGULATED AIR

1. CONTINUITY TESTS:

A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-00.

B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.

C. DO NOT TEST LOW LEVEL DEVICES (SWITCH/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCH/RELAY CONTACTS MAY USE RX1 SCALE.

D. WHEN TESTING CONTINUITY, TEST FOR:

(1) SHORTS TO GROUND.
(2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS
(3) SHORTS BETWEEN SHIELD AND CONDUCTORS
(4) SHIELD CONTINUITY.

E. WHEN ELECTRICAL POWER IS OFF, 24 VDC BATTERY VOLTAGE EXISTS ON SAME PINS ON CONNECTORS (IDENTIFIED BY ⊠). MAKE SURE MULTIMETER LEADS/JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY.

2. NONSTANDARD SYMBOLS

⊕ IDENTIFIES RELAY USED TO SWITCH TO LOW LEVEL CURRENT. SEE NOTE 1.

⊠ IDENTIFIES 24 VDC BATTERY VOLTAGE EXITS ON SOME PIN OF THE CONNECTOR. SEE NOTE 1.

(3) FUEL PRESSURIZATION AND VENT SYSTEM SCHEMATICA WP011 00.

(4) FUEL LOW LEVEL WARNING SYSTEM SCHEMATIC WP013 00.

(5) INTERNAL FUEL TRANSFER SYSTEM SCHEMATIC WP007 00.

(6) DURING REFUELING, VALVE CLOSES WHEN FUEL IS ABOVE HIGH LEVEL PILOT VALVE. DURING DEFUELING, VALVE OPENS WHEN DEFUELING PRESSURE IS APPLIED AND FUEL IS ABOVE VALVE.

(7) FUEL QUANTITY GAGING SYSTEM SCHEMATIC, A1-F18AC-740-500, WP012 00.

(8) EXTERNAL FUEL TANK DISPLAY SCHEMATIC, A1-F18AC-740-500, WP012 00.

[9] F/A-18A

[10] F/A-18B

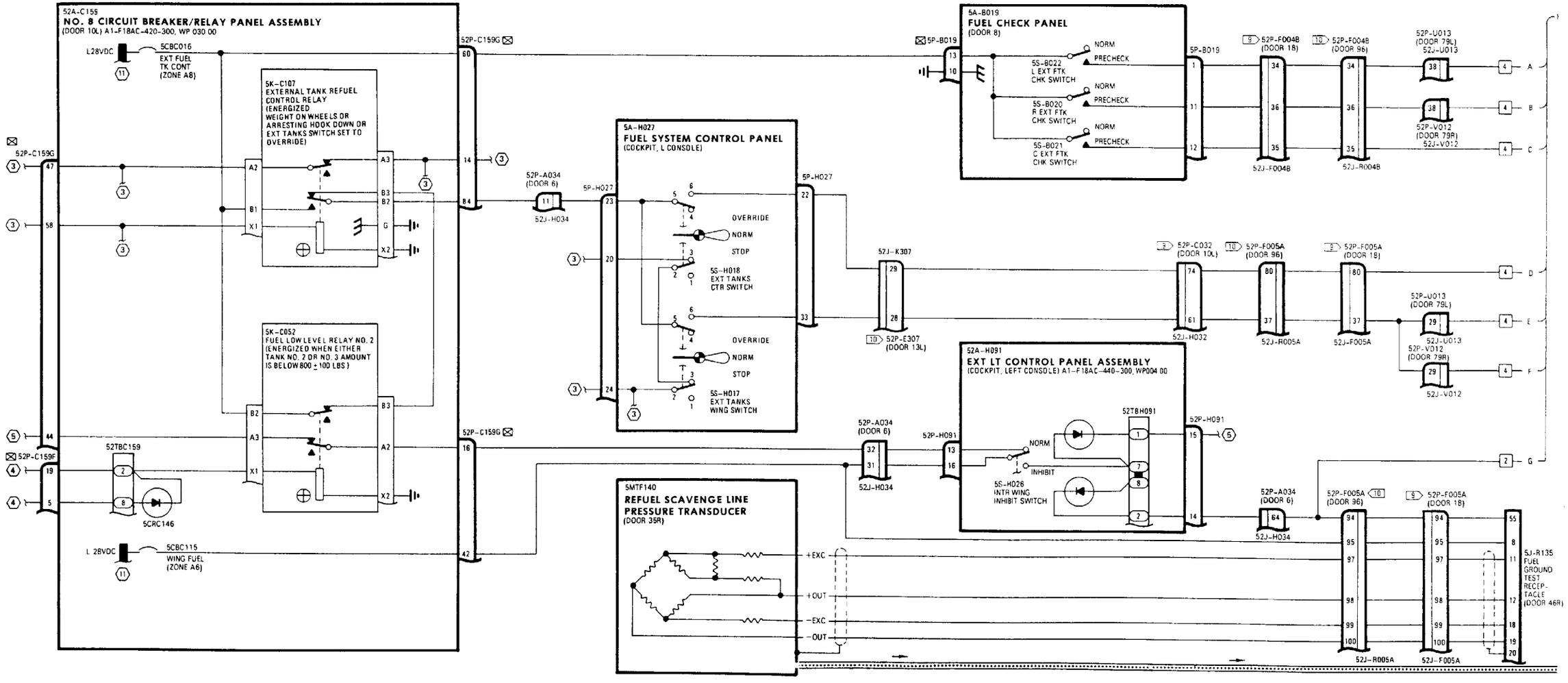
(11) POWER DISTRIBUTION SYSTEM SCHEMATIC, A1-F18AC-420-500, WP005 00

[12] 161735 AND UP.

[13] 161716 AND UP.

04020101

Figure 1. Refuel/Defuel System Schematic (Sheet 1)



04020102

Figure 1. Refuel/Defuel System Schematic (Sheet 2)

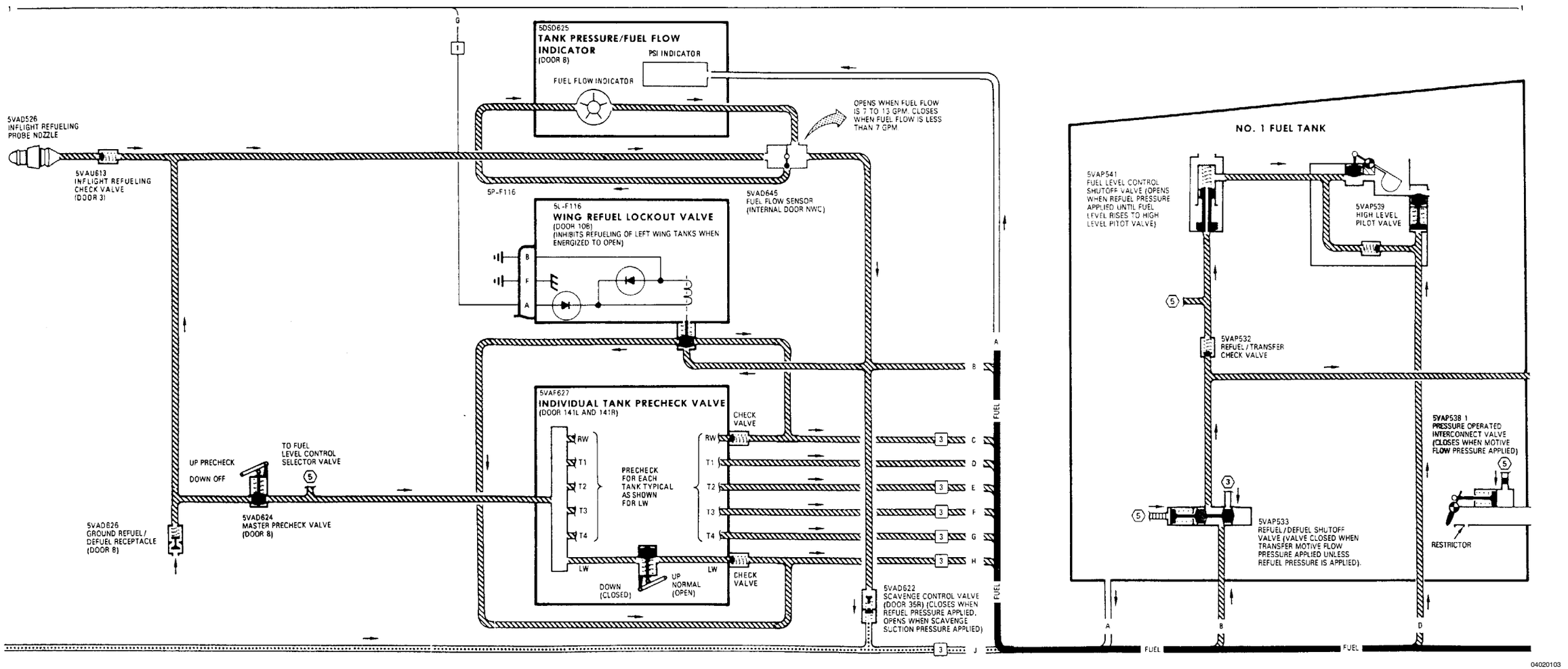


Figure 1. Refuel/Defuel System Schematic (Sheet 3)

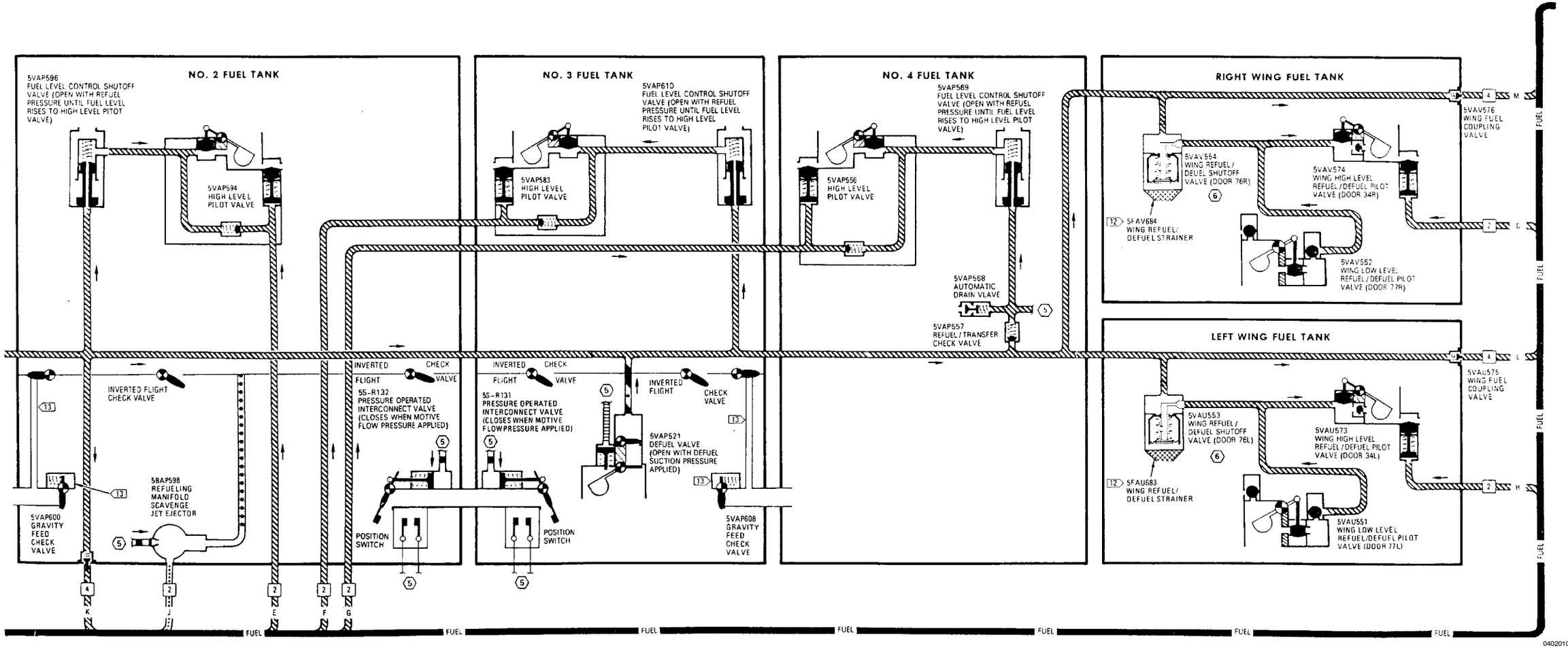
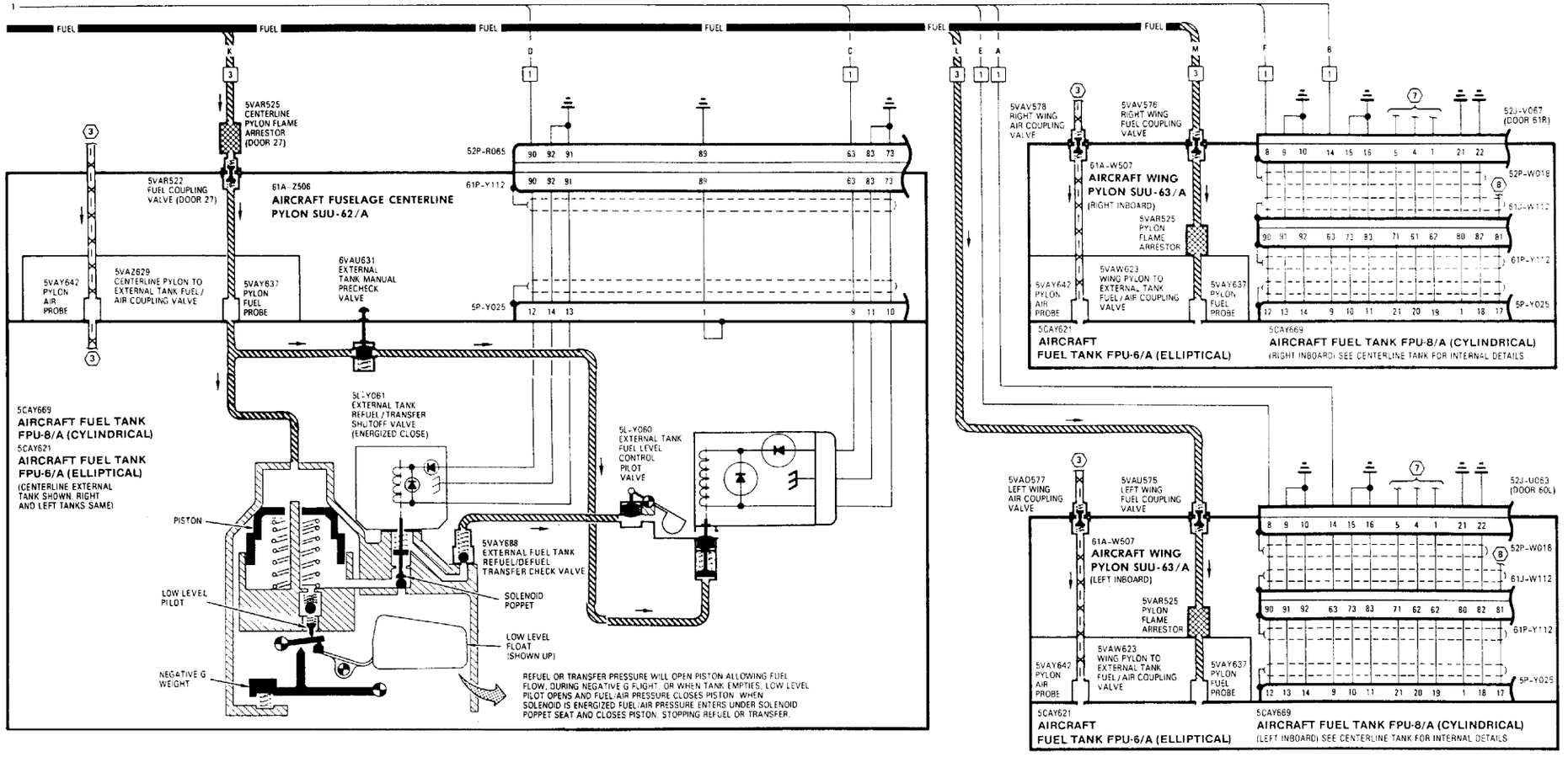


Figure 1. Refuel/Defuel System Schematic (Sheet 4)



04020105

Figure 1. Refuel/Defuel System Schematic (Sheet 5)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

REFUEL/DEFUEL SYSTEM

EFFECTIVITY: 161924 AND UP; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 39

Reference Material

None

Alphabetical Index

Subject **Page No.**

Refuel/Defuel System Schematic, 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39, Figure 1 3

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA-F/A-18-00072C1)	1 Nov 86	-
F/A-18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve and Raised Inverted Baffle (ECP MDA-F/A-18-00055)	1 Nov 86	-

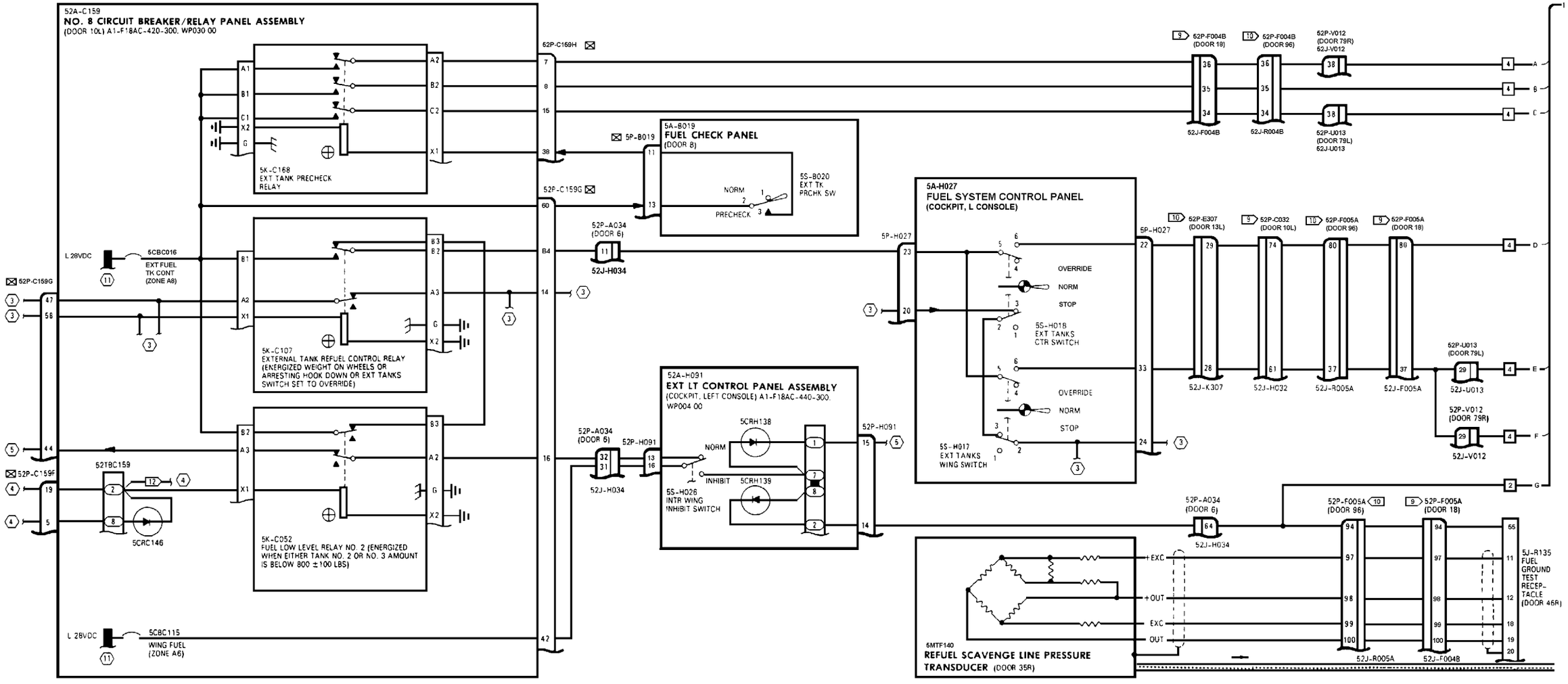


Figure 1. Refuel/Defuel System Schematic 161924 and UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39 (Sheet 1)

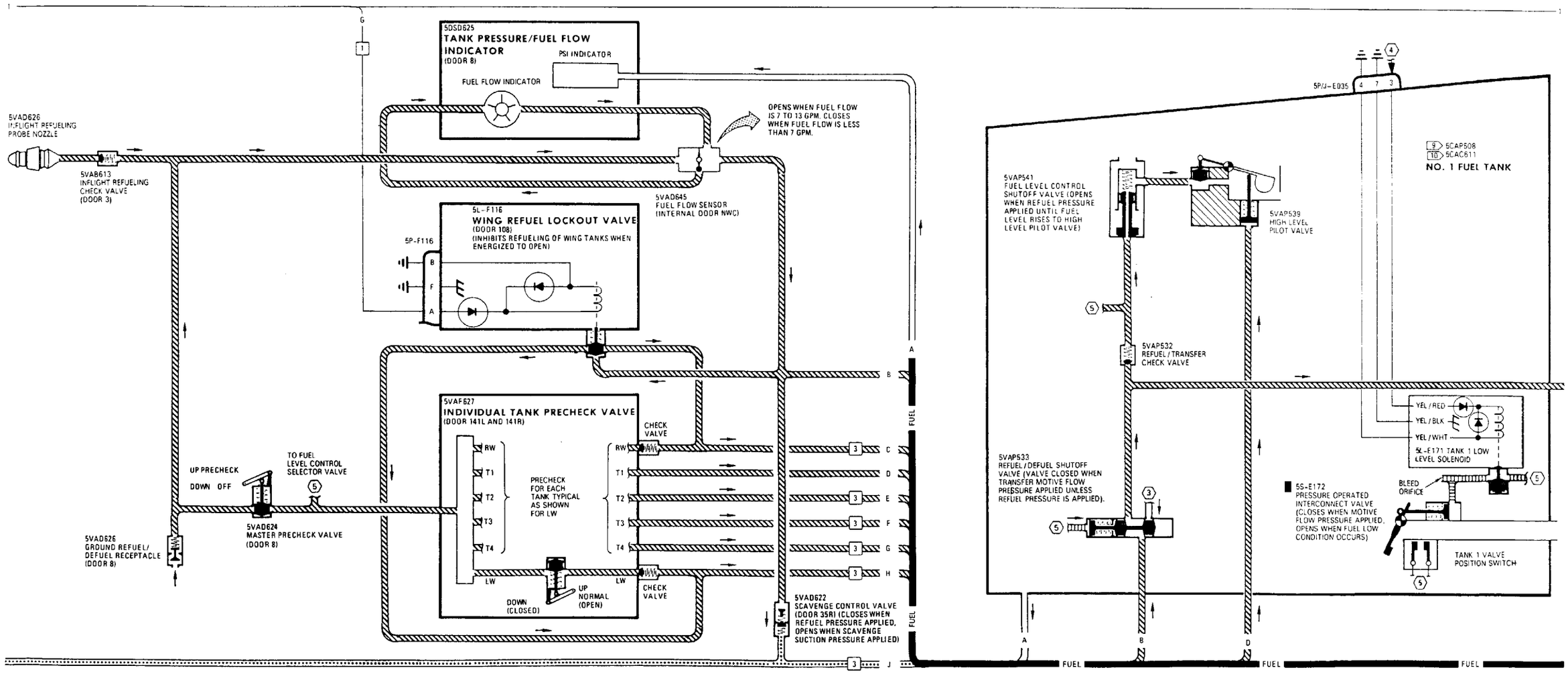


Figure 1. Refuel/Defuel System Schematic 161924 and UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39 (Sheet 2)

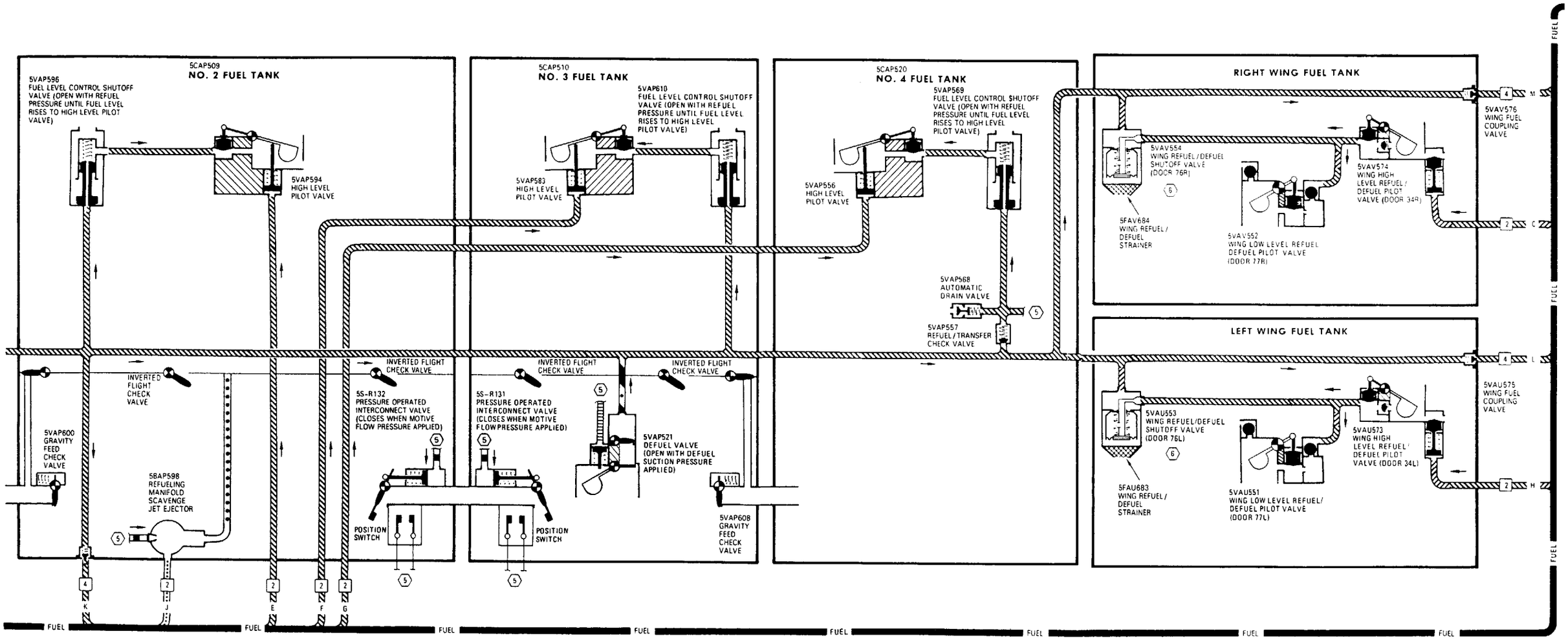


Figure 1. Refuel/Defuel System Schematic 161924 and UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39 (Sheet 3)

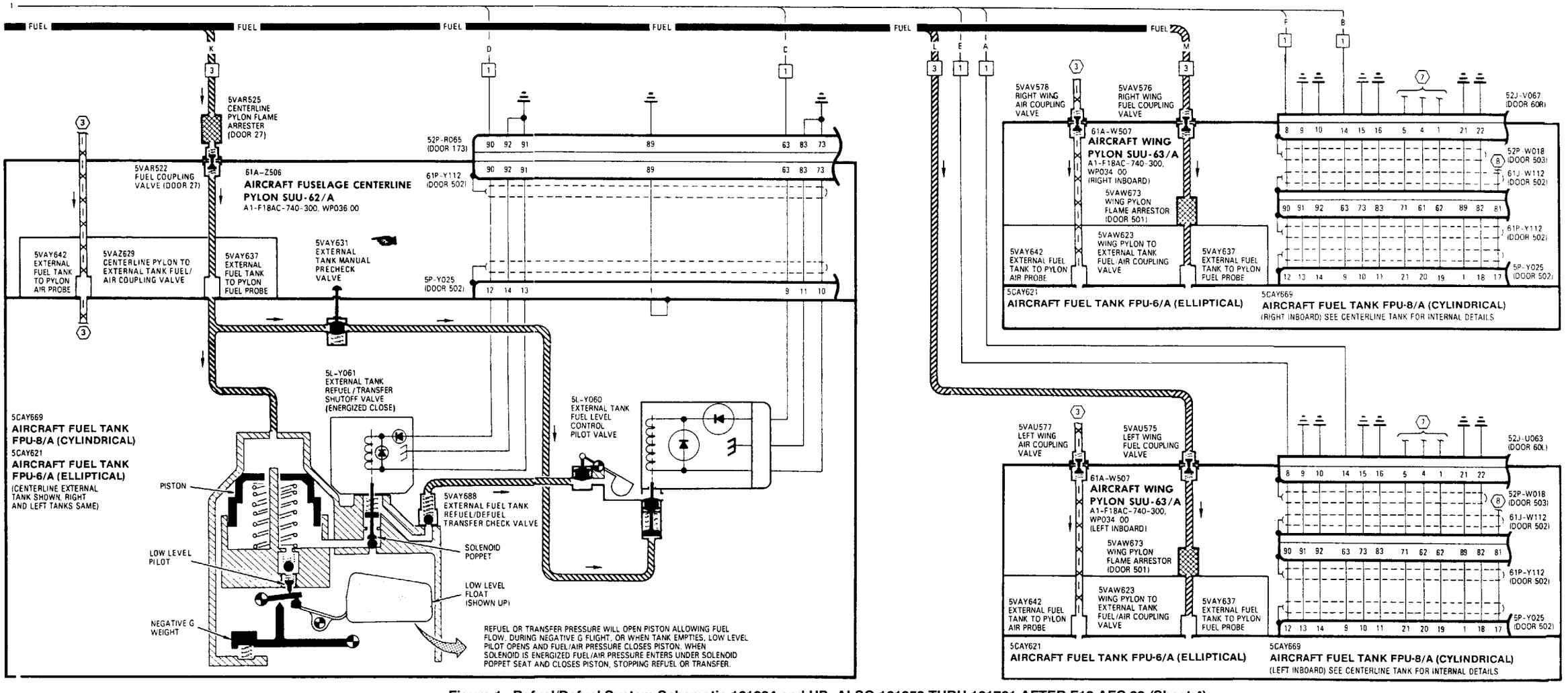


Figure 1. Refuel/Defuel System Schematic 161924 and UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39 (Sheet 4)

LEGEND

FUEL	HIGHWAY FOR MULTIPLE FUEL PATTERNS
	TRANSFER MOTIVE FLOW
	REFUEL
	DEFUEL
	MOTIVE FLOW
	SCAVENGE
	VENT
	REGULATED AIR

1. CONTINUITY TESTS:

   A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.

   B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.

   C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RX1 SCALE.

   D. WHEN TESTING CONTINUITY, TEST FOR:

      (1) SHORTS TO GROUND.
      (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
      (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
      (4) SHIELD CONTINUITY.

   E. WHEN ELECTRICAL POWER IS OFF, 24VDC BATTERY VOLTAGE IS AVAILABLE AT SOME PINS ON CONNECTOR (IDENTIFIED BY ⊠). MAKE SURE MULTIMETER LEADS/JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY

2. NONSTANDARD SYMBOLS:

   ⊕ IDENTIFIES RELAY USED TO SWITCH TO LOW LEVEL CURRENT. SEE NOTE 1.

   ⊠ IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR. SEE NOTE 1.

(3) FUEL PRESSURIZATION AND VENT SYSTEM MAINTENANCE CODE AND CAUTION SCHEMATIC, WP011 00.

(4) FUEL QUANTITY LOW LEVEL WARNING SYSTEM SCHEMATIC WP013 00.

(5) INTERNAL FUEL TRANSFER SYSTEM SCHEMATIC WP007 00.

(6) DURING REFUELING, VALVE CLOSES WHEN FUEL IS ABOVE HIGH LEVEL PILOT VALVE. DURING DEFUELING, VALVE OPENS WHEN DEFUELING PRESSURE IS APPLIED AND FUEL IS ABOVE VALVE.

(7) FUEL QUANTITY GAGING SYSTEM SCHEMATIC, WP012 00.

(8) EXTERNAL FUEL TANK DISPLAY SCHEMATIC, A1-F18AC-740-500, WP012 00.

[9] F/A-18A

[10] F/A-18B

(11) POWER DISTRIBUTION SCHEMATIC, A1-F18AC-420-500, WP012 00.

[12] 161924 THRU 162477.

04030105

Figure 1. Refuel/Defuel System Schematic 161924 and UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39 (Sheet 5)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

INFLIGHT REFUELING SYSTEM

Reference Material

None

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5CBC002 - IFR PROBE	13
5CBC003 - IFR LT	13
11CBC016 - HYD ISOL	13
Inflight Refueling System Caution Schematic, Figure 3	19
Inflight Refueling System Component Locator, Figure 1	2
Inflight Refueling System Schematic, Figure 2	13

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA-F18-00054C1)	1 Nov 86	-

NOMENCLATURE	INDEX NO.	REF DES
AIR DATA COMPUTER CP-1334/A	8	70A-F001
APU ACCUMULATOR AND START VALVE ASSEMBLY	9	2L-P011
EMERGENCY INFLIGHT REFUELING DIRECTIONAL CONTROL VALVE	5	5L-D009
EMERGENCY LANDING GEAR MANUAL CONTROL VALVE ASSEMBLY	11	10L-G017
FUEL SYSTEM CONTROL PANEL PROBE CONTROL SWITCH	2	5A-HQ27 5S-H005
INFLIGHT REFUELING CHECK VALVE	12	5VAB613
INFLIGHT REFUELING DIRECTIONAL CONTROL VALVE	14	5L-B007
INFLIGHT REFUELING FLOODLIGHT	15	5DSB008
INFLIGHT REFUELING FLOODLIGHT TRANSFORMER	10	5T-B012
INFLIGHT REFUELING HYDRAULIC CHECK VALVE	20	5VAC646
INFLIGHT REFUELING PROBE ACTUATING CYLINDER (PROBE EXTEND LIMIT SWITCH IS PART OF ACTUATING CYLINDER)	17	5HP-B006
INFLIGHT REFUELING PROBE NOZZLE	19	5VAB526
INFLIGHT REFUELING PROBE RETRACT LIMIT SWITCH	18	5S-B010
INFLIGHT REFUELING PROBE SHUTTLE VALVE	16	5VAB572
LEFT DIGITAL DISPLAY INDICATOR IP-1317/( )	1	80A-H001
NO. 3 RELAY PANEL ASSEMBLY	3	52A-EC59
NO. 4 RELAY PANEL ASSEMBLY	4	52A-D026
NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY	6	52A-C057
NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY	7	52A-C159
SIGNAL DATA CONVERTER CV-3493/ASM-612	13	85A-N002

LEGEND

1. AIRCRAFT CONNECTOR LOCATIONS ARE SHOWN IN A1-F18A( )-WDM-000.

2 161353 THRU 161528 BEFORE F18 AFC 41.

3 161702 AND UP; ALSO 161353 THRU 16152B AFTER F18 AFC 41.

4 161353 THRU 162909.

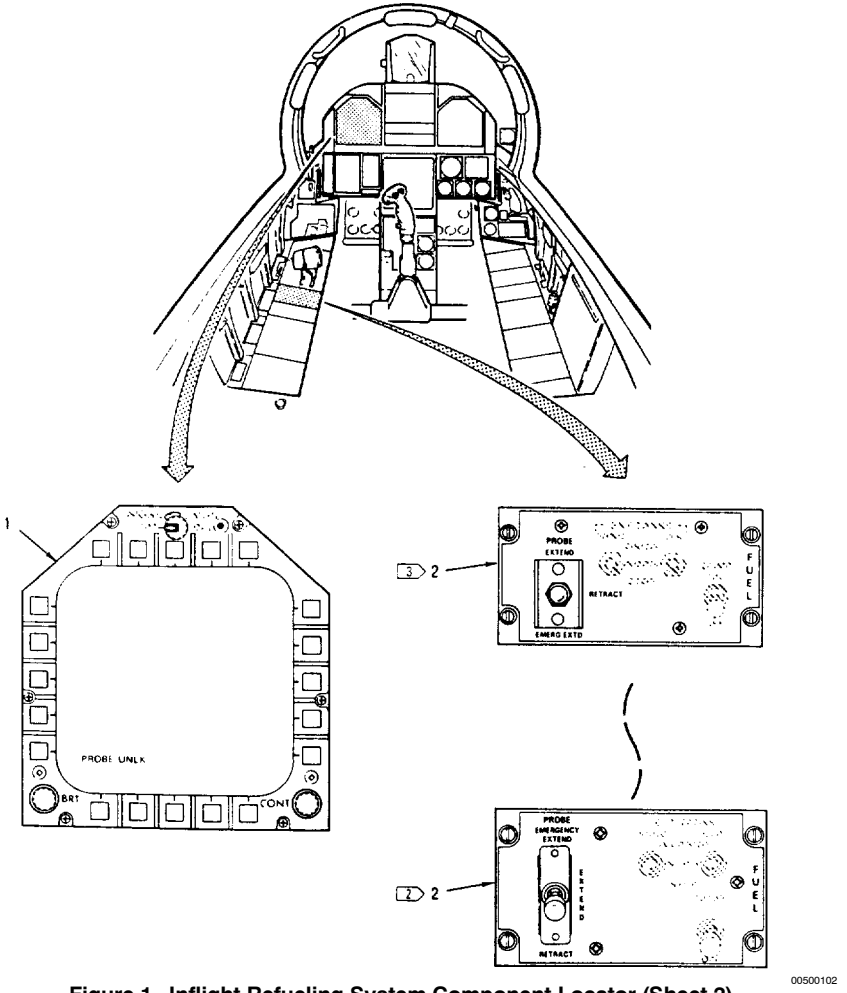
5 163092 AND UP.

6 161353 THRU 161528.

7 161702 AND UP.

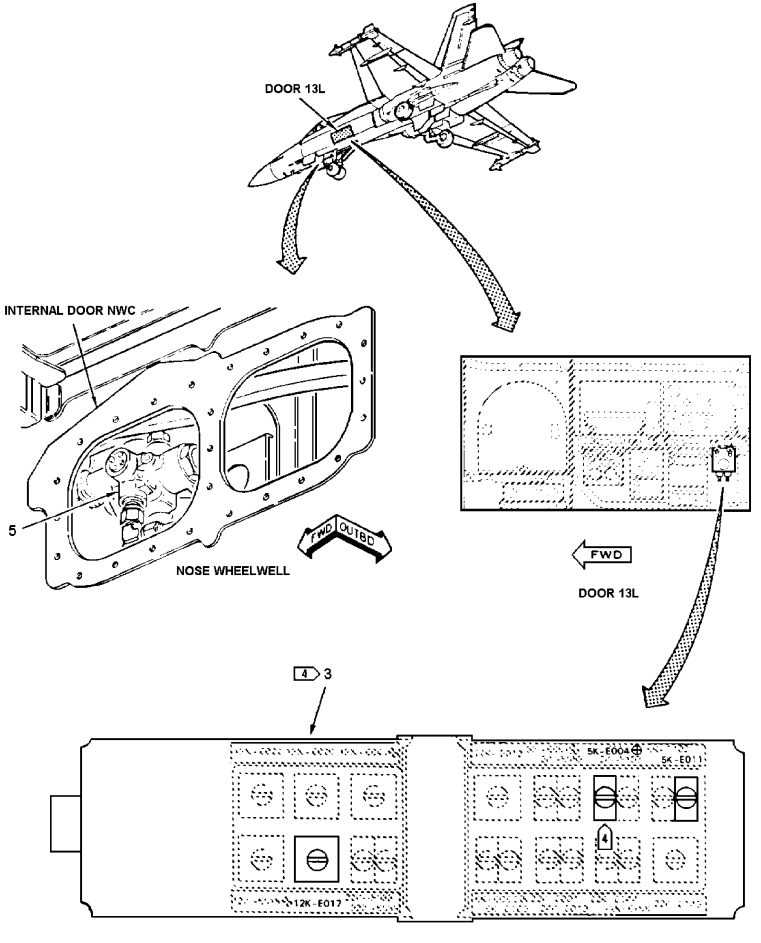
00500101

Figure 1. Inflight Refueling System Component Locator (Sheet 1)



00500102

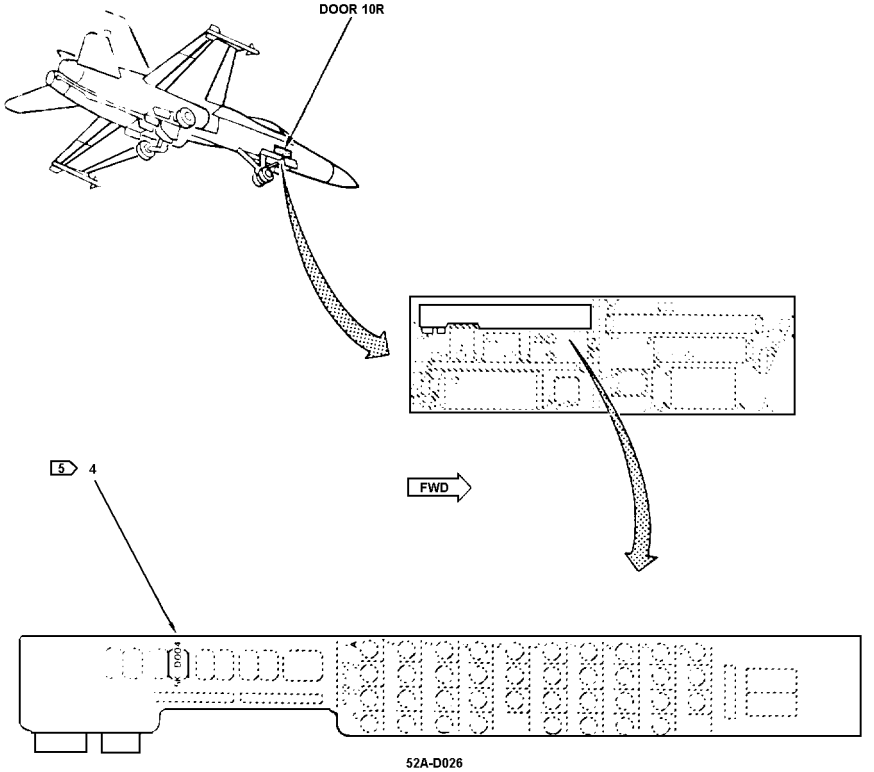
Figure 1. Inflight Refueling System Component Locator (Sheet 2)



52A-E059

00500103

Figure 1. Inflight Refueling System Component Locator (Sheet 3)



00500104

Figure 1. Inflight Refueling System Component Locator (Sheet 4)

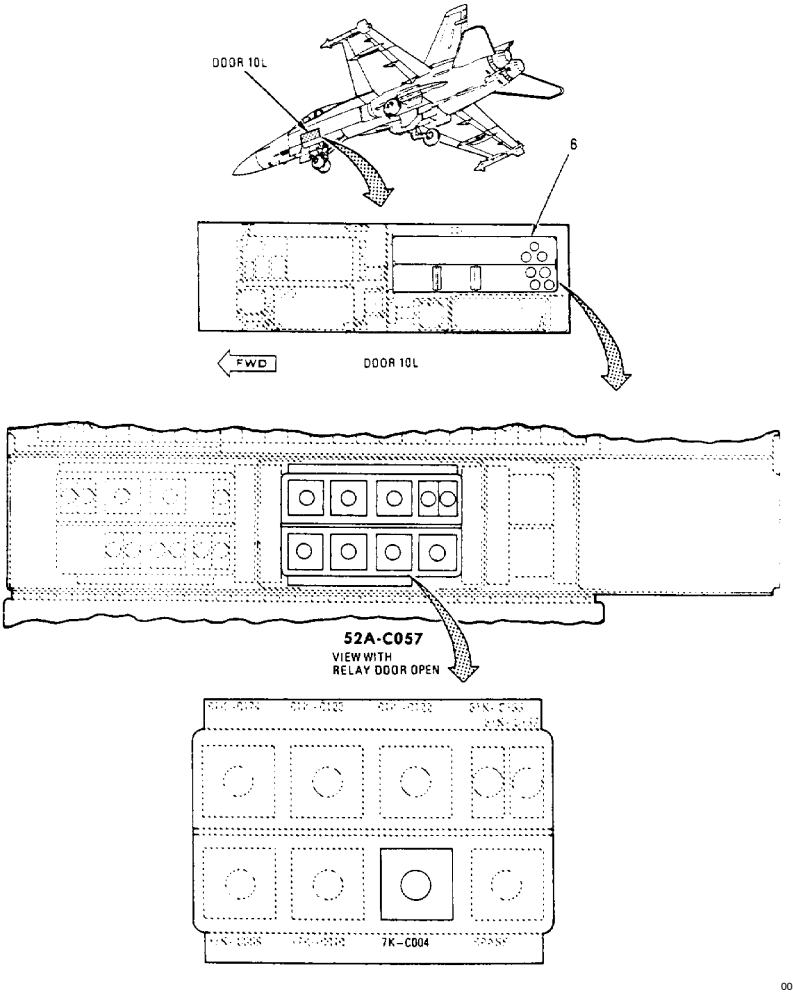
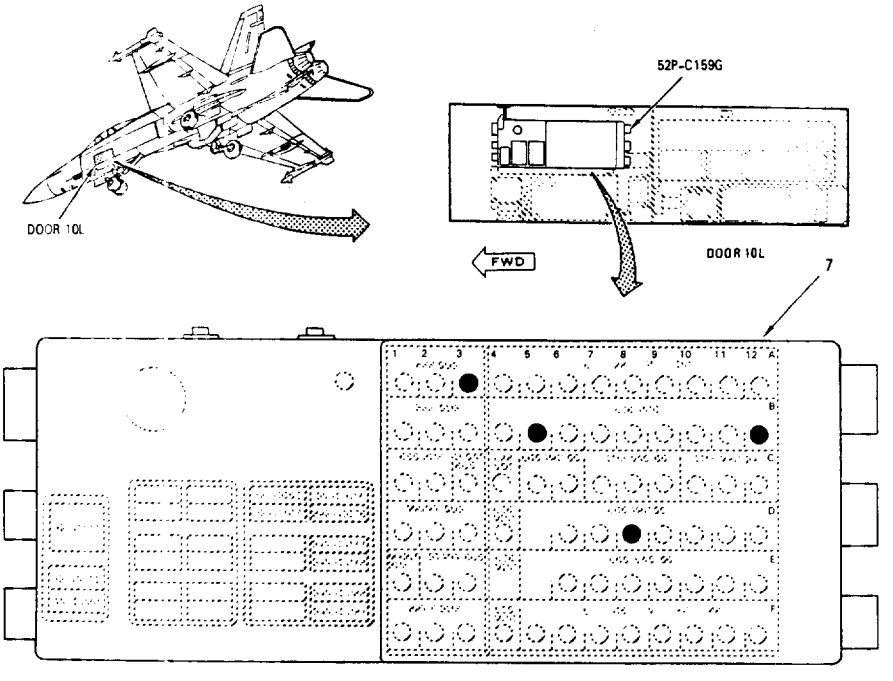


Figure 1. Inflight Refueling System Component Locator (Sheet 5)



52A-C159

52A-C159 NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
A3	5CBC001	EMER IFR	ESS 24/28VDC
B5	5CBC002	IFR PROBE	L28VDC
B12	10CBC016	HYD ISOL	L28VDC
D8	5CBC003	IFR LT	L115VAC ϕC

00500106

Figure 1. Inflight Refueling System Component Locator (Sheet 6)

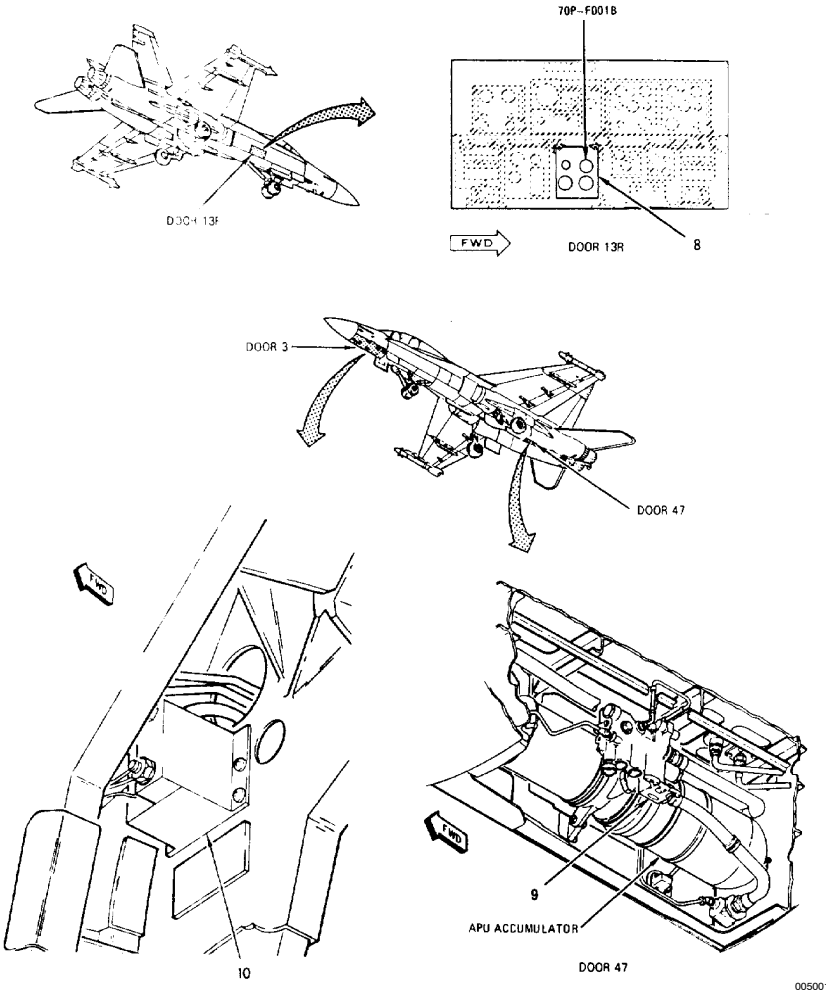


Figure 1. Inflight Refueling System Component Locator (Sheet 7)

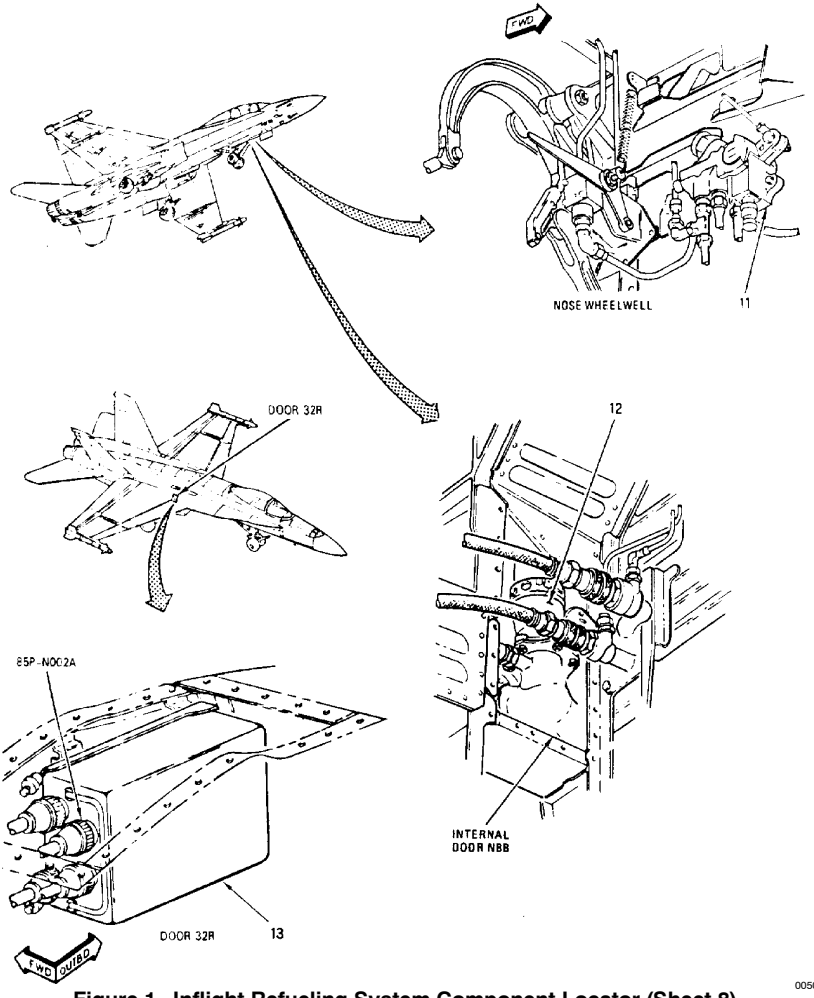


Figure 1. Inflight Refueling System Component Locator (Sheet 8)

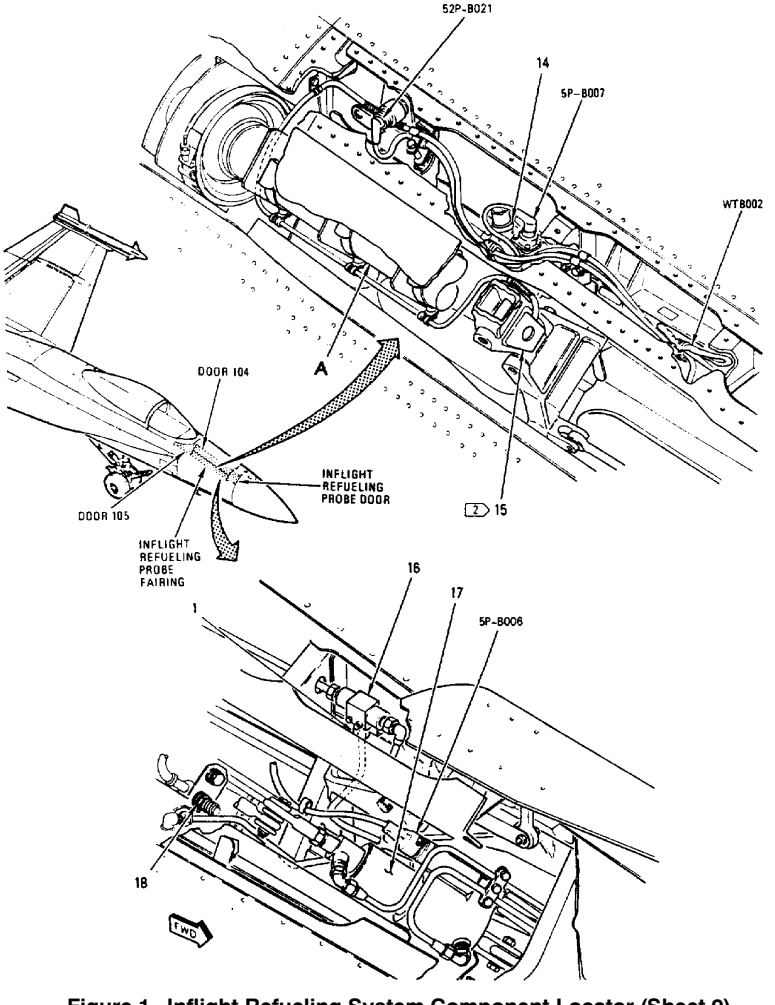
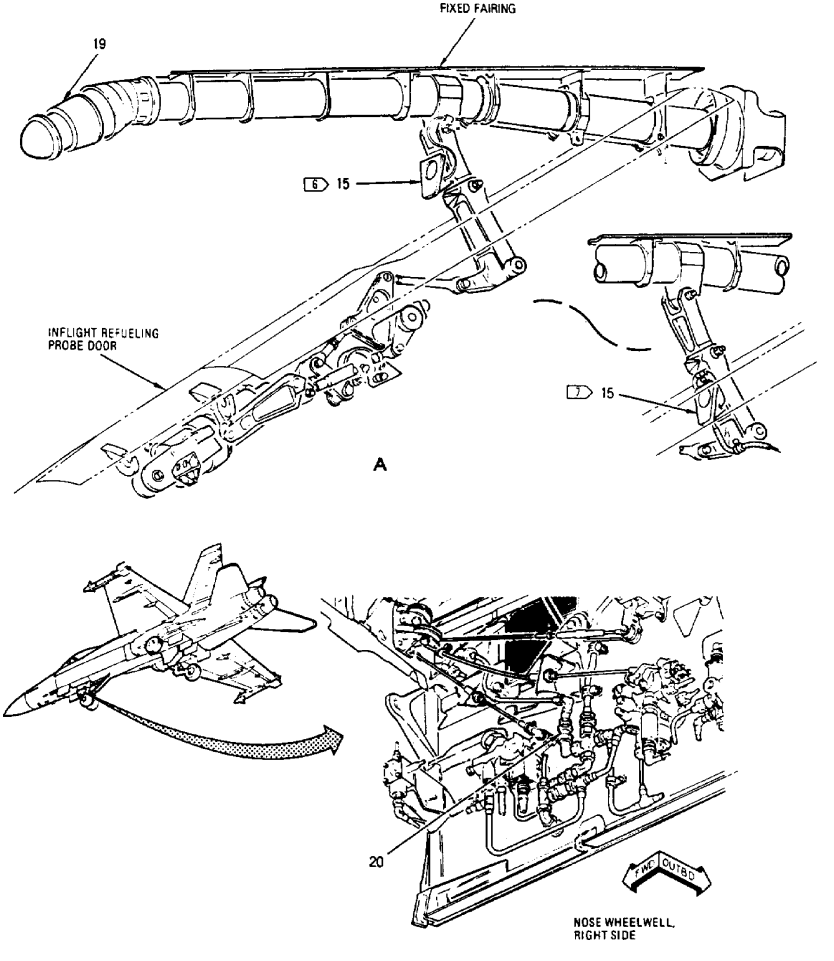
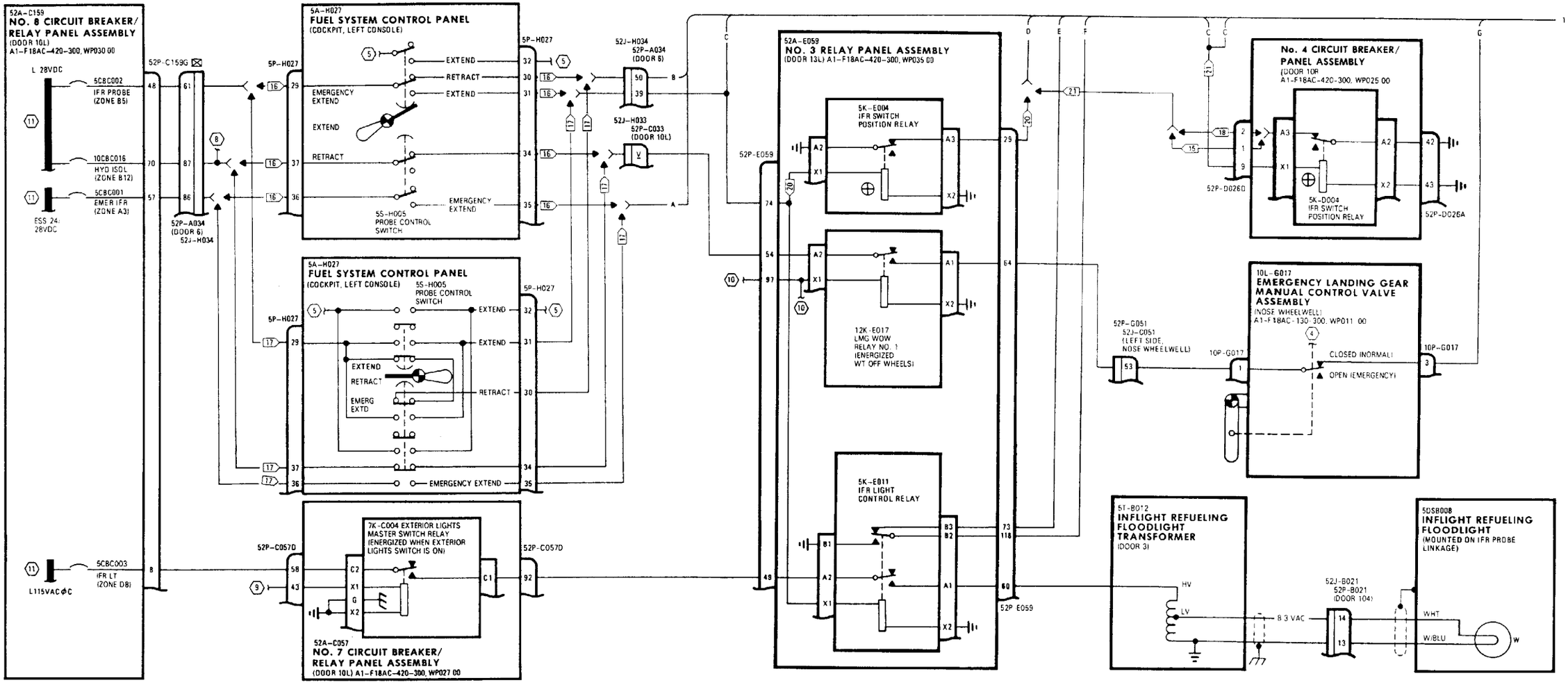


Figure 1. Inflight Refueling System Component Locator (Sheet 9)



00500110

Figure 1. Inflight Refueling System Component Locator (Sheet 10)



00500201

Figure 2. Inflight Refueling System Schematic (Sheet 1)

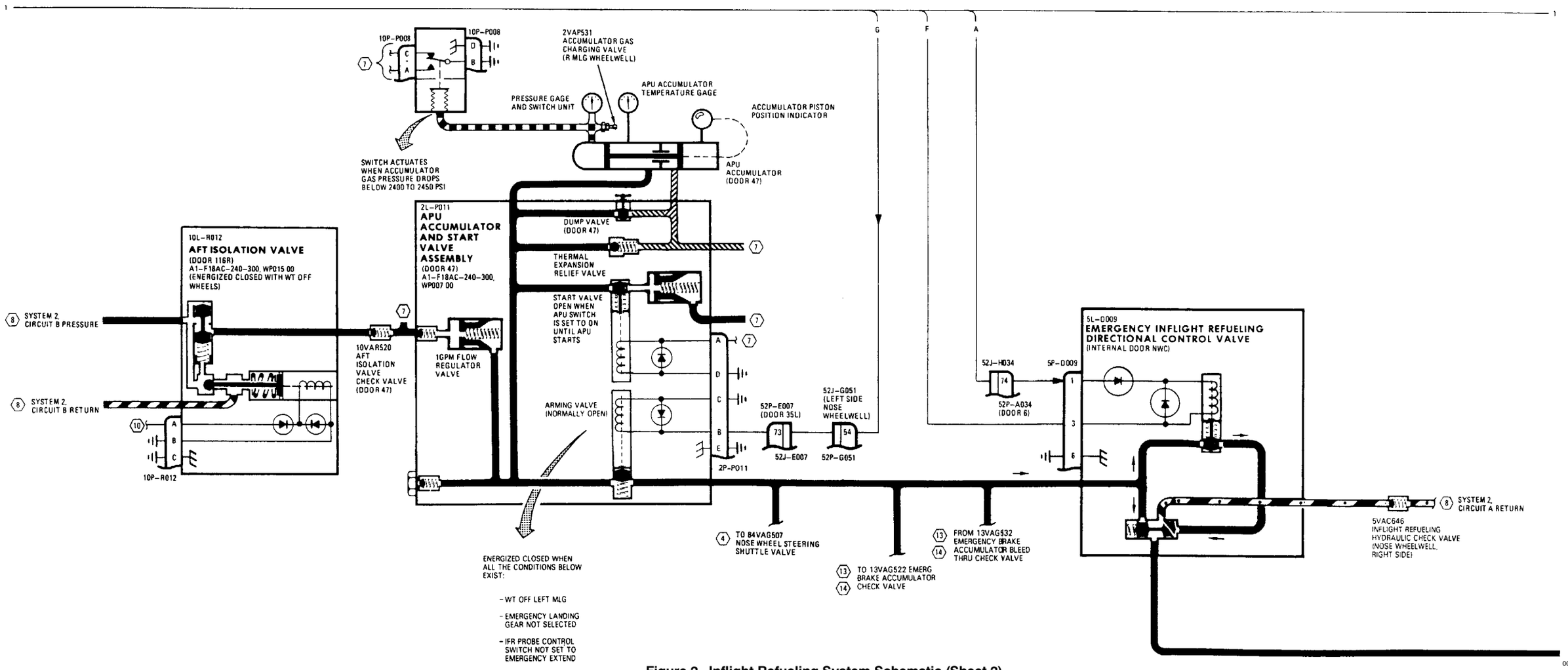


Figure 2. Inflight Refueling System Schematic (Sheet 2)

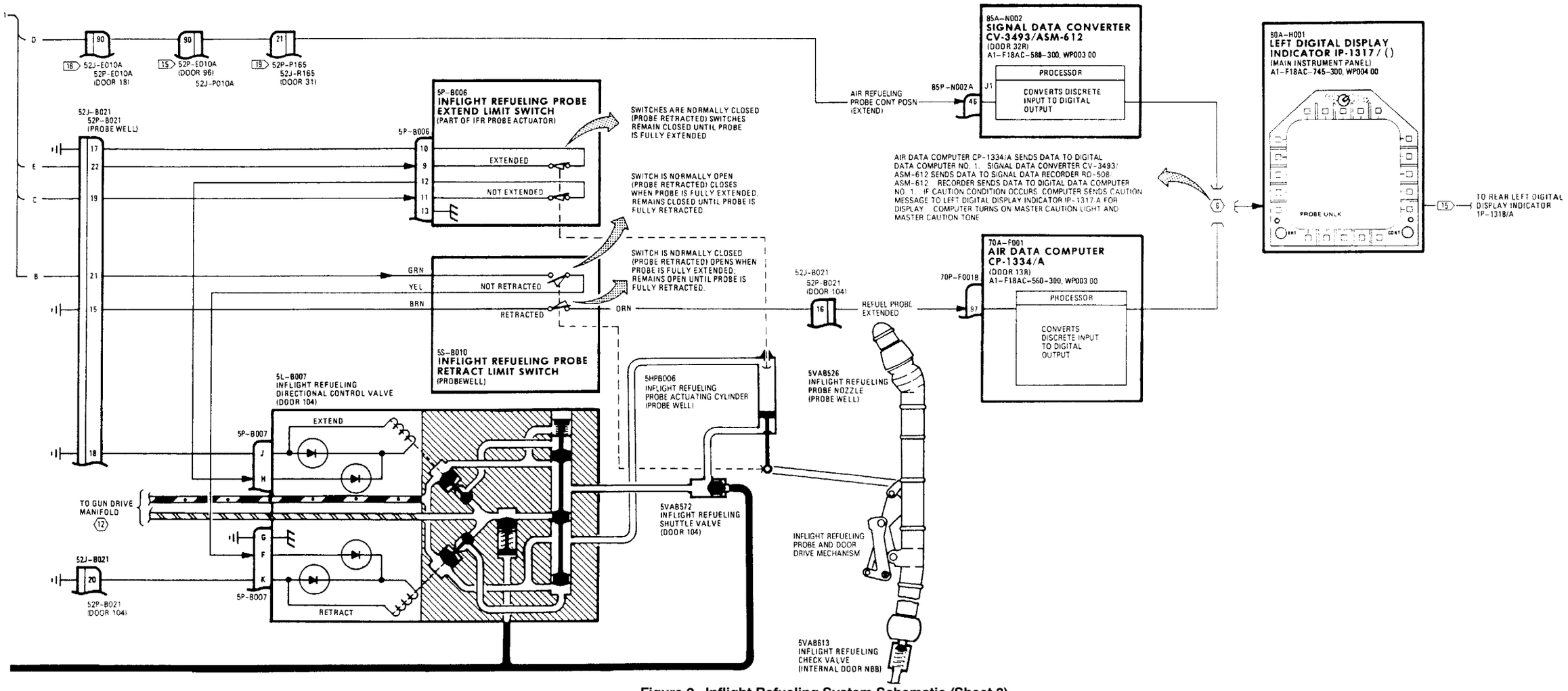


Figure 2. Inflight Refueling System Schematic (Sheet 3)

LEGEND

SYSTEM 2, CIRCUIT B PRESSURE (EMERG)

SYSTEM 2, CIRCUIT A RETURN

SYSTEM 2, CIRCUIT A PRESSURE

1. CONTINUITY TESTS:

   A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.

   B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY(IDENTIFIED BY ⊕)IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR PROPER REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE REPLACE WITH NEW RELAY.

   C. DO NOT TEST LOW LEVEL DEVICES (SWITCH/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETERS ON RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCH/RELAY CONTACTS MAY USE RX1 SCALE.

   D. WHEN TESTING CONTINUITY, TEST FOR:

      (1) SHORTS TO GROUND.
      (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
      (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
      (4) SHIELD CONTINUITY.

   E. WHEN ELECTRICAL POWER IS OFF, 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS ON CONNECTORS (IDENTIFIED BY ⊠) MAKE SURE MULTIMETER LEADS/JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY.

2. LINE UNDER LETTER (S) INDICATES LOWER CASE PIN LETTER.

3. NONSTANDARD SYMBOLS

   ⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1.

   ○ NON-STRUCTURAL PIVOT

   ◕ STRUCTURAL PIVOT

⊠ IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR. SEE NOTE 1.

(4) NOSEWHEEL STEERING SYSTEM SCHEMATIC, A1-F18AC-570-500, WP028 00.

(5) FUEL PRESSURIZATION AND VENT SYSTEM SCHEMATIC, WP011 00.

(6) INFLIGHT REFUELING SYSTEM CAUTION SCHEMATIC, THIS WP.

(7) APU START SYSTEM SCHEMATIC, A1-F18AC-240-500, WP004 00.

(8) HYDRAULIC SYSTEM 2 SCHEMATIC, A1-F18AC-440-500, WP003 00.

(9) EXTERIOR LIGHTING SYSTEM SCHEMATIC, A1-F18AC-440-500, WP003 00.

(10) LANDING GEAR CONTROLLED RELAYS SCHEMATIC, A1-F18AC-130-500, WP006 00.

(11) POWER DISTRIBUTION SCHMATIC, A1-F18AC-420-500, WP005

(12) GUN SYSTEM SCHEMATIC, A1-F18AC-750-500, WP004 00.

(13) WHEEL BRAKE AND ANTISKID SYSTEM SCHEMATIC, 1A-F18AC-130-500, WP008 00.

(14) LANDING GEAR CONTROL SYSTEM SCHEMATIC, A1-F18AC-130-500, WP004 00.

[15] F/A-18B

[16] 161353 THRU 161528, BEFORE F18 AFC 041.

[17] 161702 AND UP, ALSO 161353 THRU 161528 AFTER F18 AFC 041.

[18] F/A-18A

[19] 162445 AND UP.

[20] 161353 THRU 162909

[21] 163092 AND UP.

00500204

Figure 2. Inflight Refueling System Schematic (Sheet 4)

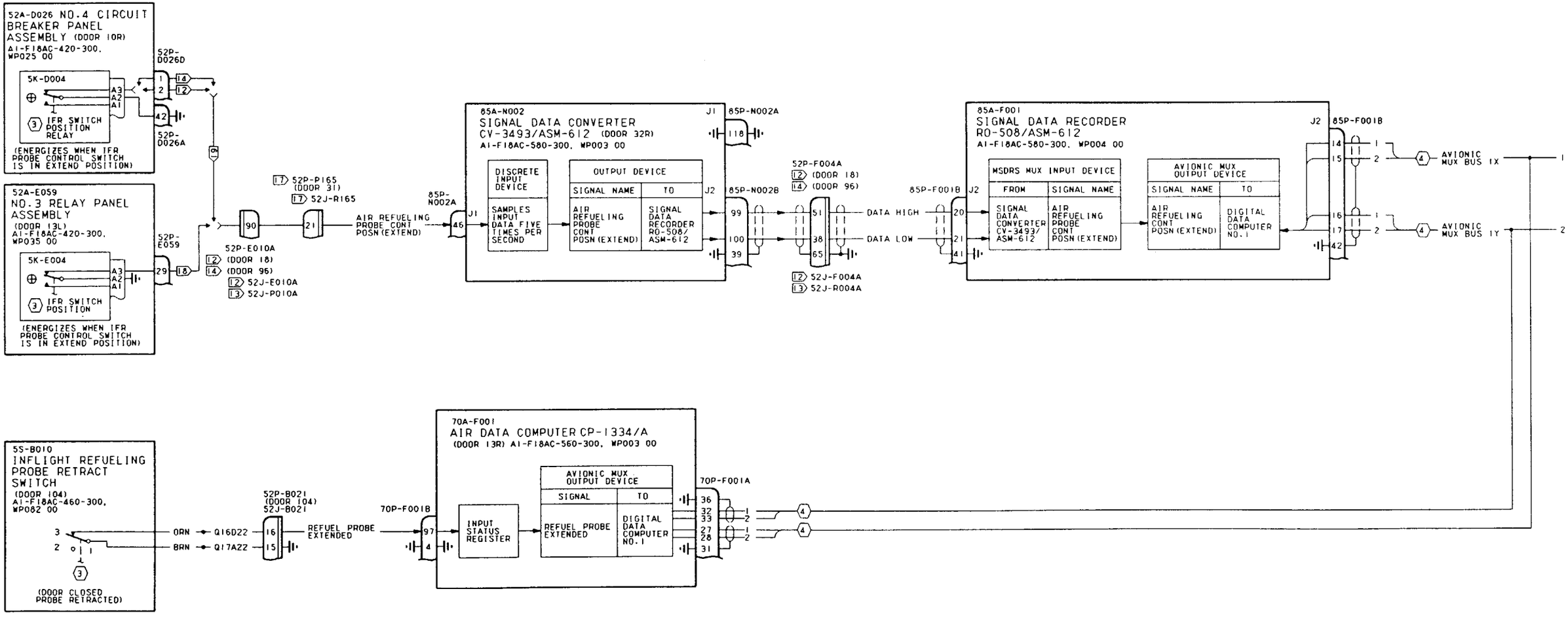


Figure 3. Inflight Refueling System Caution Schematic (Sheet 1)

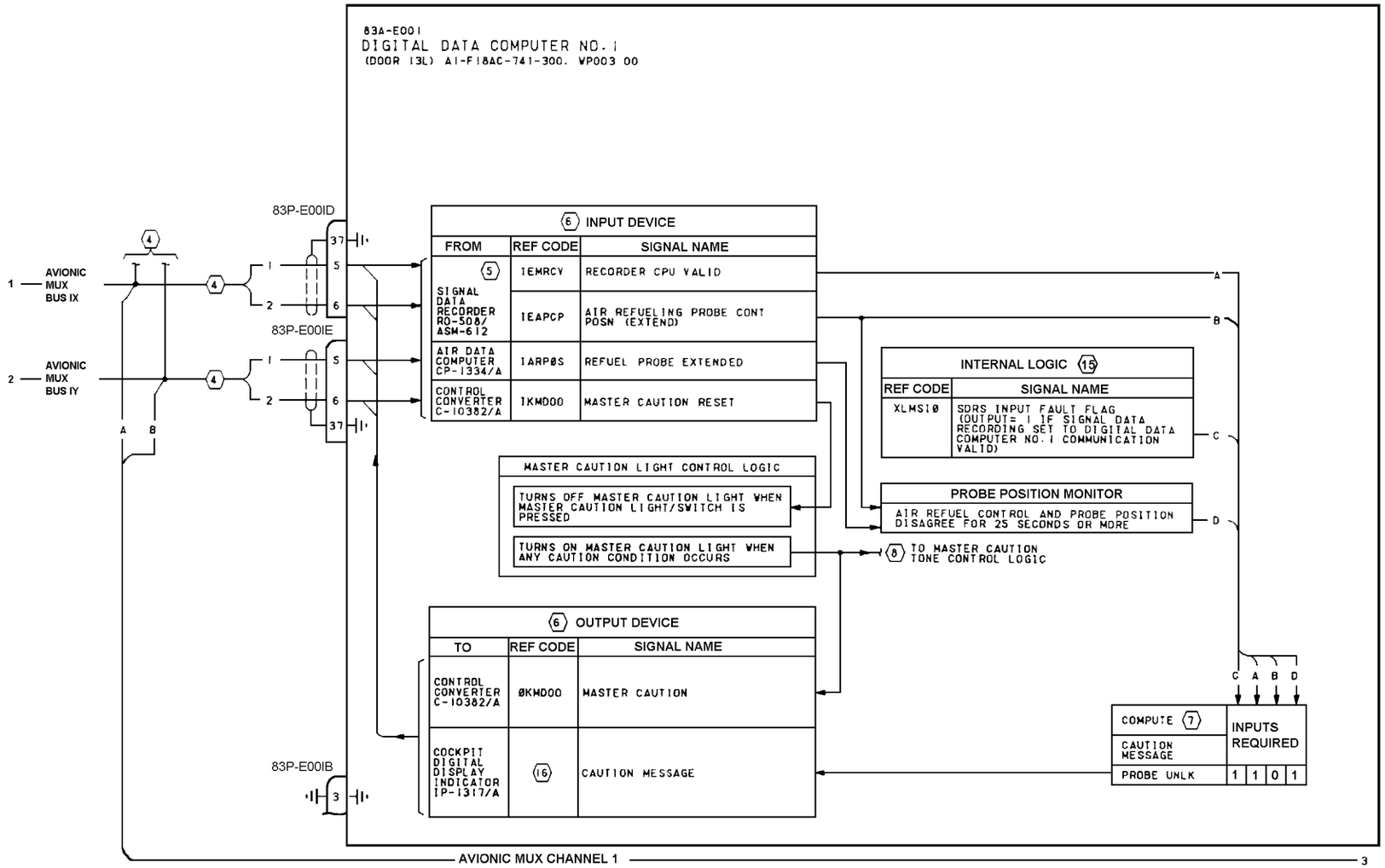


Figure 3. Inflight Refueling System Caution Schematic (Sheet 2)

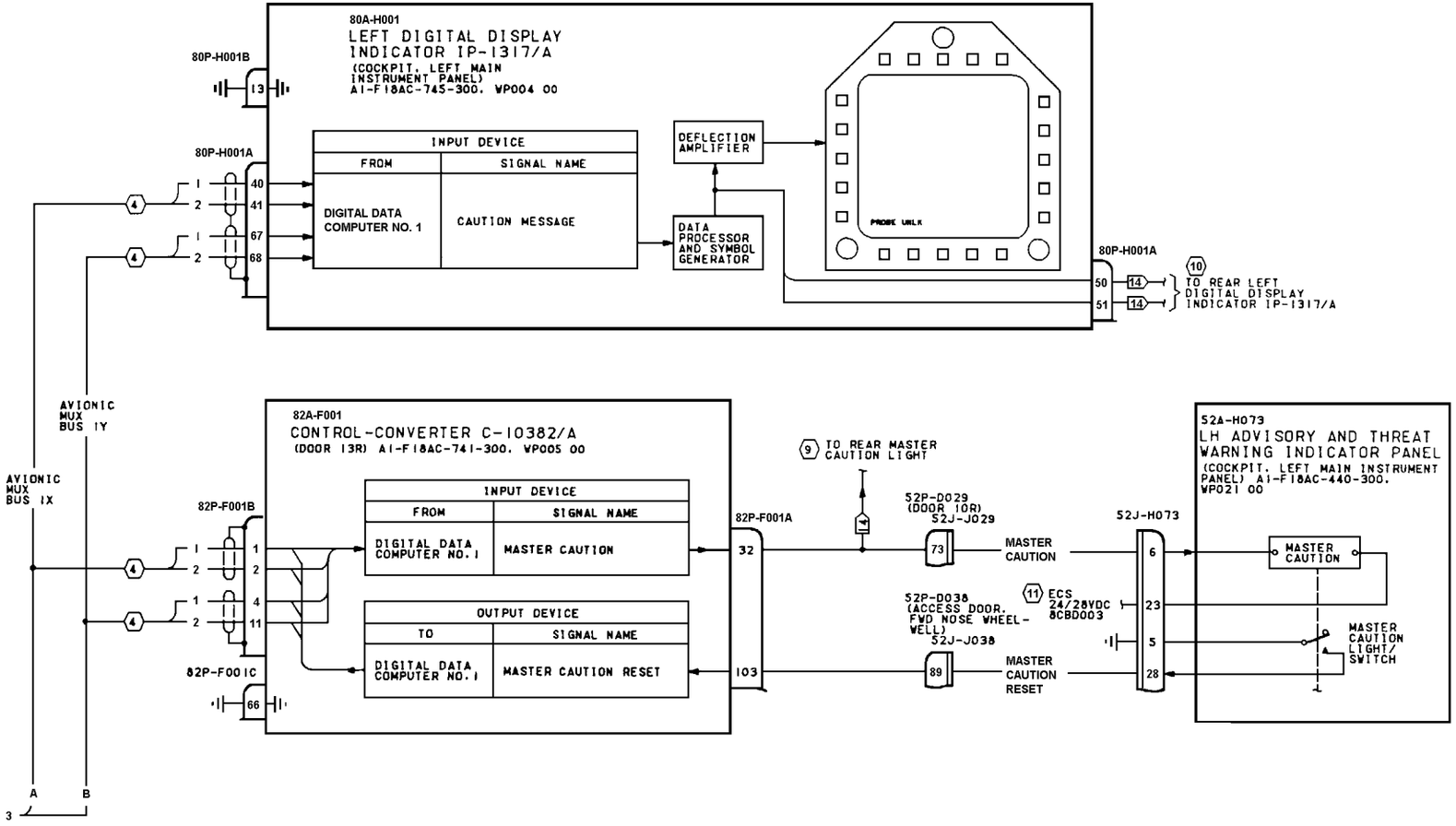


Figure 3. Inflight Refueling System Caution Schematic (Sheet 3)

LEGEND

1. CONTINUITY TESTS:
   - A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.
   - B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE REPLACE WITH NEW RELAY.
   - C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RX1 SCALE.
   - D. WHEN TESTING CONTINUITY, TEST FOR:
     - (1) SHORTS TO GROUND.
     - (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
     - (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
     - (4) SHIELD CONTINUITY.
2. NONSTANDARD SYMBOLS
   - ⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1.
   - TELELIGHT

(3) INFLIGHT REFUELING SYSTEM SCHEMATIC, THIS WP.

(4) AVIONIC MUX CHANNEL 1 SCHEMATIC, A1-F18AC-741-500, WP004 00.

(5) MAINTENANCE STATUS DISPLAY AND RECORDING SYSTEM BUILT-IN TEST SCHEMATIC, A1-F18AC-580-500, WP003 00.

(6) FOR LOGIC DIAGRAMS RELATING TO REF CODE, REFER TO A1-F18AC-OLD-000.

(7) EXPLANATION OF MATRIX
- A. COMPUTE COLUMN LISTS THE SIGNAL OUTPUT.
- B. INPUTS REQUIRED ARE USED TO DEVELOP THE COMPUTED SIGNAL OUTPUT.
- C. SIGNAL OUTPUT IS READ HORIZONTALLY, EACH HORIZONTAL LINE IS AN INDEPENDENT SIGNAL OUTPUT.
- D. INTERPRET MATRIX TABLE AS INDICATED:
  - (1) ONE (1) INDICATES THIS INPUT AS NAMED MUST BE THERE TO GET THE OUTPUT.
  - (2) ZERO (0) INDICATES THIS INPUT AS NAMED MUST NOT BE THERE TO GET THE OUTPUT.
  - (3) DASH (-) INDICATES THE OUTPUT DOES NOT DEPEND ON THIS INPUT.

(8) INTERCOMMUNICATION AND AUDIO SYSTEM FUNCTIONAL SCHEMATIC, A1-F18AC-600-500, WP013 00.

(9) REAR COCKPIT CAUTION LIGHTS SCHEMATIC, A1-F18AC-440-500, WP007 00.

(10) MULTIPURPOSE DISPLAY GROUP INTERCONNECT SCHEMATIC TF/A-18A, A1-F18AC-745-500, WP004 00.

(11) COCKPIT CAUTION LIGHTS SCHEMATIC, A1-F18AC-440-500, WP006 00.

(12) F/A-18A.

(13) F/A-18B PLUG AND JACK POSITIONS ARE REVERSED FROM POSITION SHOWN.

(14) F/A-18B.

(15) REF CODES USED FOR THESE COMPUTATIONS ARE MISSION COMPUTER INTERNAL MNEMONICS. TO LOCATE INTERNAL REF CODES IN A1-F18AC-OLD-000, USE THE LOGIC DIAGRAMS FOR THE INPUT/OUTPUT REF CODES.

(16) DISPLAY REF CODES ARE NOT SHOWN. IF DISPLAY MALFUNCTION EXISTS, TRANSFER DISPLAY TO ANOTHER INDICATOR. IF MALFUNCTION EXISTS ON MORE THAN ONE INDICATOR, TROUBLESHOOT USING A1-F18AC-OLD-000 INPUT REF CODES. IF MALFUNCTION EXISTS ONLY ON ONE INDICATOR, TROUBLESHOOT BY DOING DISPLAY TEST. A1-F18AC-745-200, WP004 00 (F/A-18A) OR WP005 00 (TF/A-18A).

(17) 162445 AND UP.

(18) 161353 THRU 162909.

(19) 163092 AND UP.

00500303

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

EXTERNAL FUEL SYSTEM

Title	WP Number
External Fuel System Component Locator	006 01
External Fuel System 161353 THRU 161761, BEFORE F18 AFC 39	006 02
External Fuel System 161924 AND UP, ALSO 161353 THRU 161761 AFTER F18 AFC 39	006 04

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

EXTERNAL FUEL SYSTEM

COMPONENT LOCATOR

Reference Material

None

Alphabetical Index

Subject	Page No.
External Fuel System Component Locator, Figure 1	2

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 41	-	Installation of Equipment, Structure Wiring and Attaching Hardware (ECP MDA-F18-00054C1)	1 Nov 86	-
F18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA-F18-00072C1)	1 Nov 86	-

NOMENCLATURE	INDEX NO.	REF DES
ARRESTING HOOK CONTROL HANDLE	2	19A-J003
BLEED AIR CHECK VALVE	24	5VAT506
CENTERLINE PYLON TO EXTERNAL TANK FUEL/AIR COUPLING VALVE	27	5VAZ629
CENTERLINE PYLON FLAME ARRESTOR	11	5VAR525
DIGITAL DISPLAY INDICATOR ID-2150/ASM-612	10	85A-G003
5 PSI EXTERNAL FUEL SYSTEM AIR PRESSURE SWITCH	18	5S-P151
34 PSI EXTERNAL FUEL SYSTEM AIR PRESSURE SWITCH	17	5S-P152
EXTERNAL FUEL SYSTEM GROUND TEST CONNECTOR	19	
EXTERNAL FUEL SYSTEM PRESSURIZATION BLEED ORIFICE	20	5VAP654
EXTERNAL FUEL TANK		
FUEL LEVEL CONTROL PILOT VALVE	33	5A-Y060
FUEL QUANTITY TRANSMITTER	32	5A-Y062
MANUAL PRECHECK VALVE	34	5VAY631
PRESSURE RELIEF VALVE	31	5VAY641
PRESSURIZATION AND VENT VALVE	28	5VAY630
TO PYLON AIR PROBE	29	5VAY642
TO PYLON FUEL PROBE	30	5VAY637
REFUEL/TRANSFER SHUTOFF VALVE	36	5L-Y061
REFUEL/TRANSFER CHECK VALVE	35	5VAY688
EXTERNAL TANKS AIR PRESSURE REGULATOR	23	5L-P102
EXTERNAL TANKS AIR PRESSURE REGULATOR CHECK VALVE	22	5VAR620
EXTERNAL TANKS AIR PRESSURE TRANSDUCER	21	5MTR130
FUEL CHECK PANEL	8	5A-B019
7 L EXT F TK CHK SWITCH		5S-B022
7 R EXT F TK CHK SWITCH		5S-B020
7 R EXT F TK CHK SWITCH		5S-B021
4 EXT TK PRCHK SW		5S-B020
FUEL SYSTEM CONTROL PANEL	4	5A-H027
EXT TANKS - WING SWITCH		5S-H017
EXT TANKS - CTR SWITCH		5S-H018
PROBE CONTROL SWITCH		5S-H005
FUSELAGE TO PYLON FUEL COUPLING VALVE	12	5VAR522
GROUND AIR PRESSURIZATION CONNECTOR	16	
GROUND AIR PRESSURIZATION FILTER	15	5FAP638
LH ADVISORY AND THREAT WARNING INDICATOR PANEL	1	5A-H073
LEFT DIGITAL DISPLAY INDICATOR IP-1317/A	3	80A-H001
NO. 3 RELAY PANEL ASSEMBLY	6	52A-E059
NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY	5	52A-C159
SIGNAL DATA CONVERTER CV-3493/ASM-612	9	85A-N002
SIGNAL DATA RECORDER RO-508/ASM-612	7	85A-F001
WING AIR COUPLING VALVES		
LEFT	14	5VAU577
RIGHT	14	5VAV578
WING FUEL COUPLING VALVES		
LEFT	13	5VAU575
RIGHT	13	5VAV576

06010101

Figure 1. External Fuel System Component Locator (Sheet 1)

NOMENCLATURE	INDEX NO.	REF DES
WING PYLON FLAME ARRESTOR	25	5VAW673
WING PYLON TO EXTERNAL TANK FUEL/AIR COUPLING VALVE	26	5VAW623

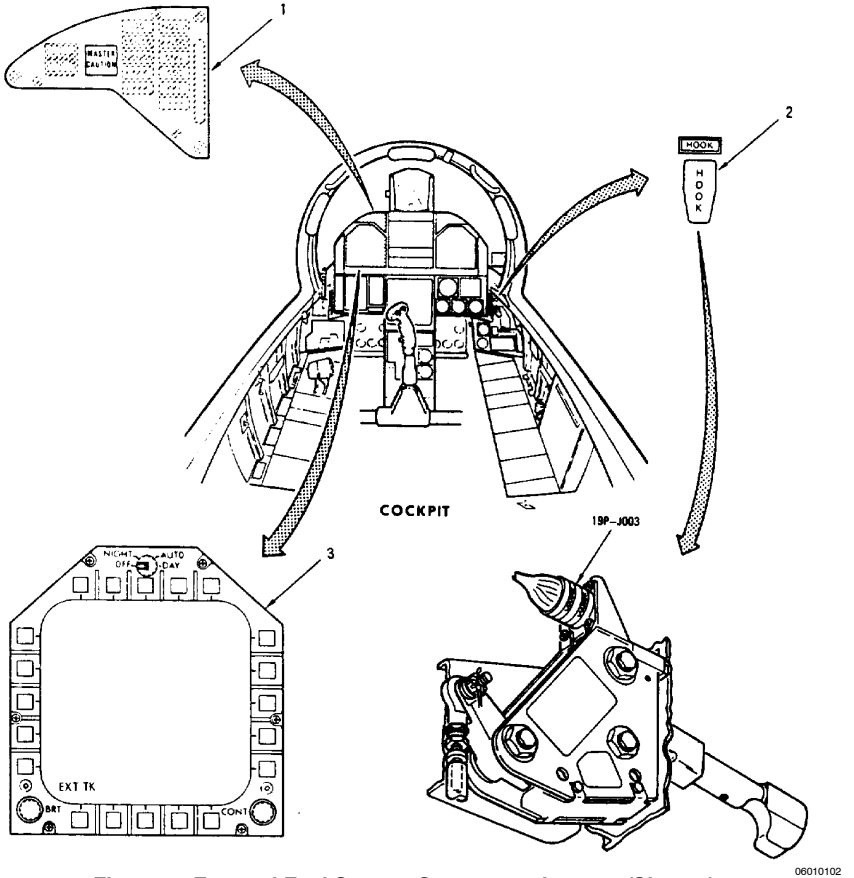


Figure 1. External Fuel System Component Locator (Sheet 2)

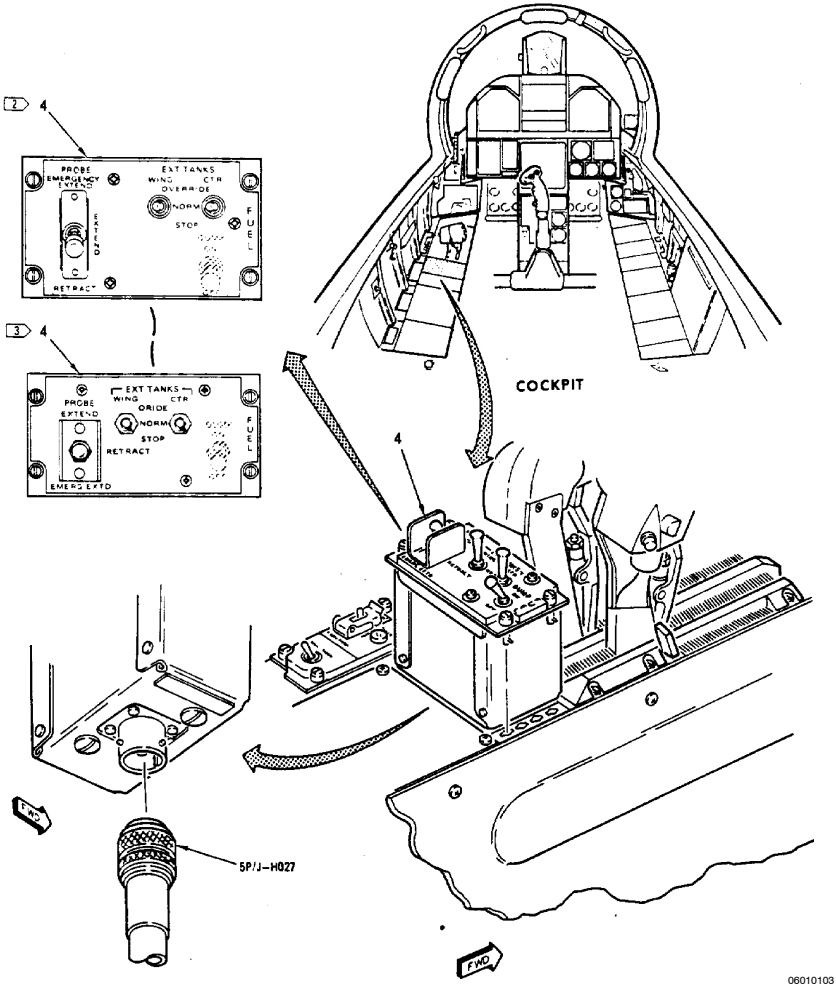
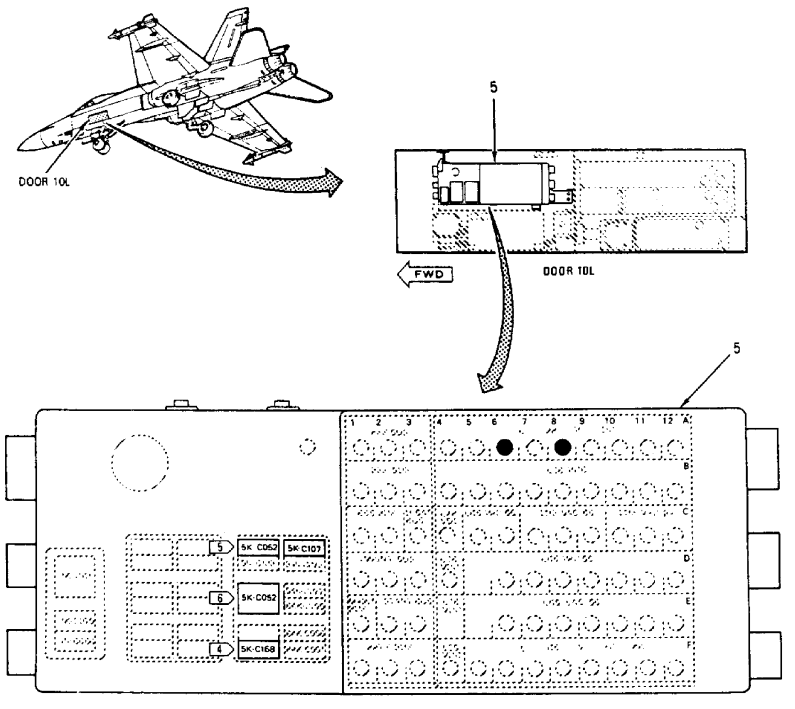


Figure 1. External Fuel System Component Locator (Sheet 3)



52A-C159

52A-C159 NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
A6 A8	5CBC101 5CBC016 5K-C052 5K-C107 (4) 5K-C168	FUEL TK PRESS EXT FUEL TK CONT FUEL LOW LEVEL RELAY NO. 2 EXTERNAL TANK REFUEL CONTROL RELAY EXTERNAL TANK PRECHECK RELAY	L28VDC L28VDC

06010104

Figure 1. External Fuel System Component Locator (Sheet 4)

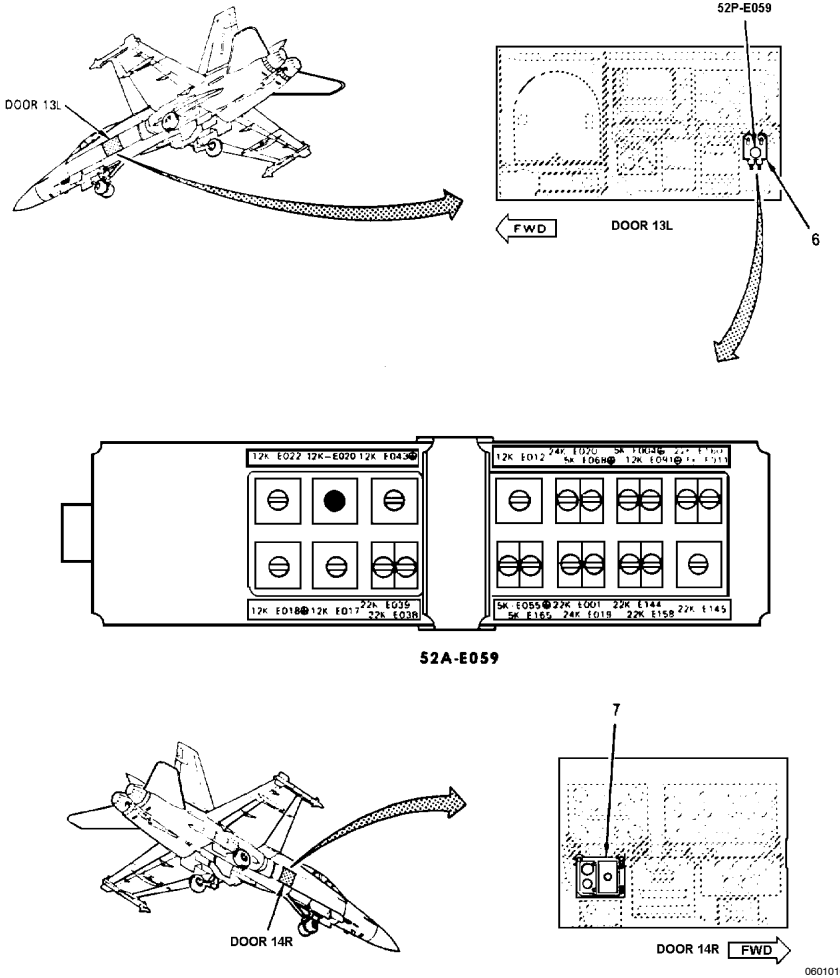


Figure 1. External Fuel System Component Locator (Sheet 5)

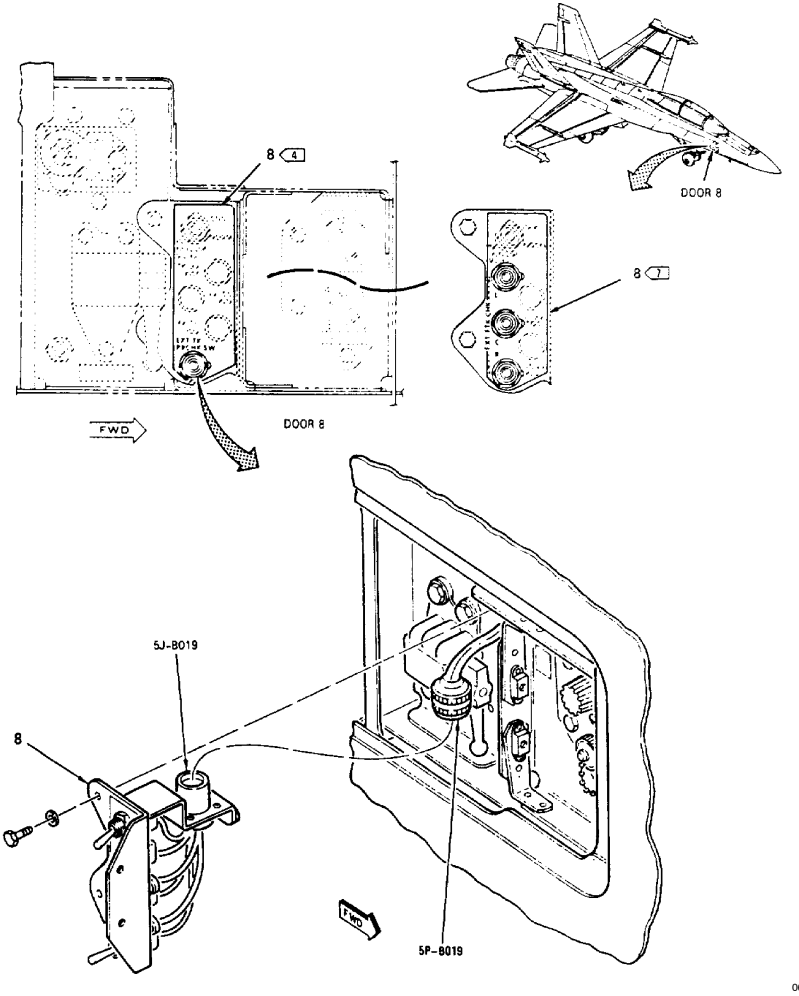


Figure 1. External Fuel System Component Locator (Sheet 6)

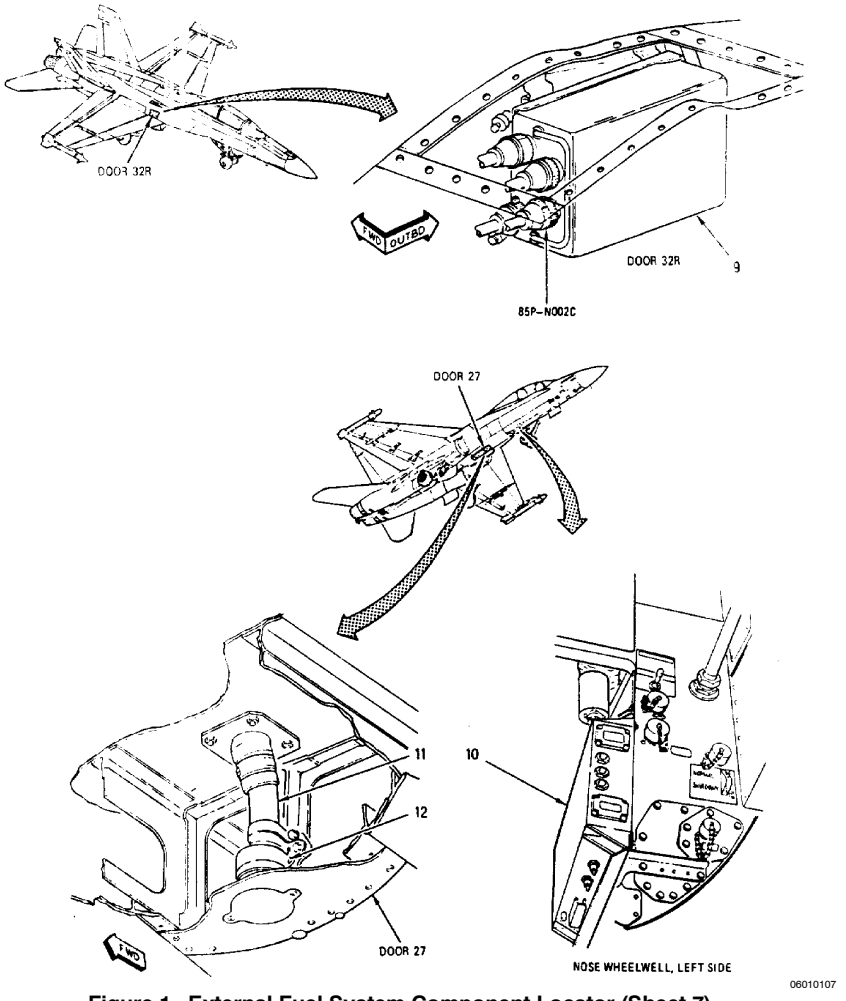


Figure 1. External Fuel System Component Locator (Sheet 7)

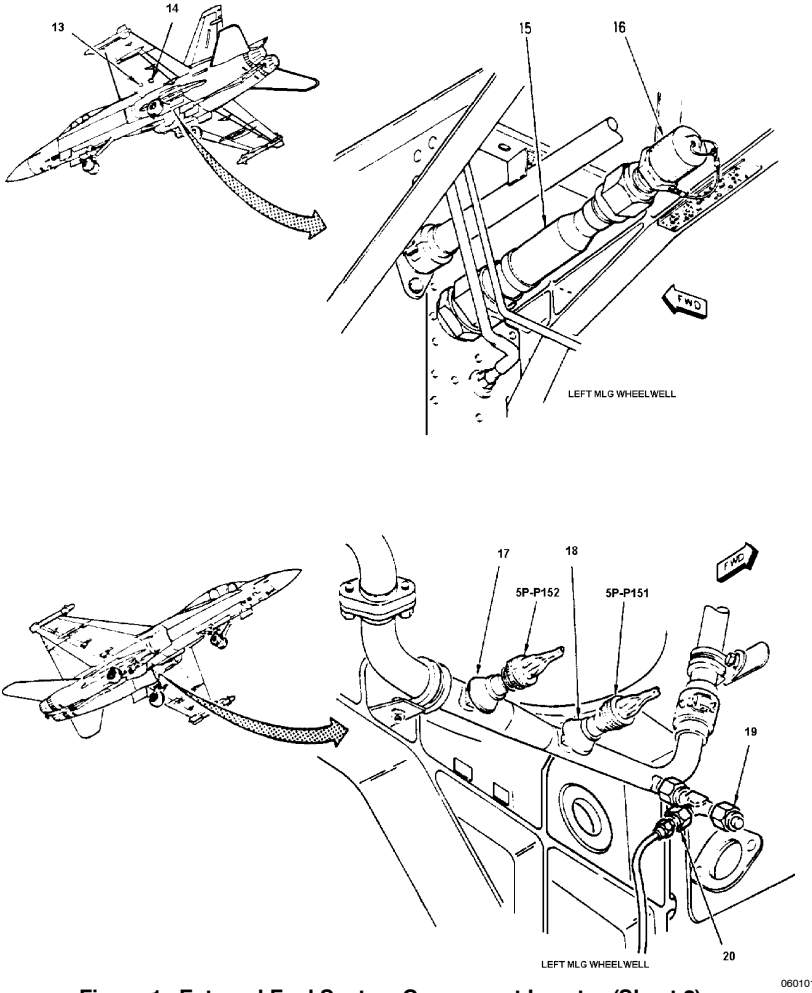


Figure 1. External Fuel System Component Locator (Sheet 8)

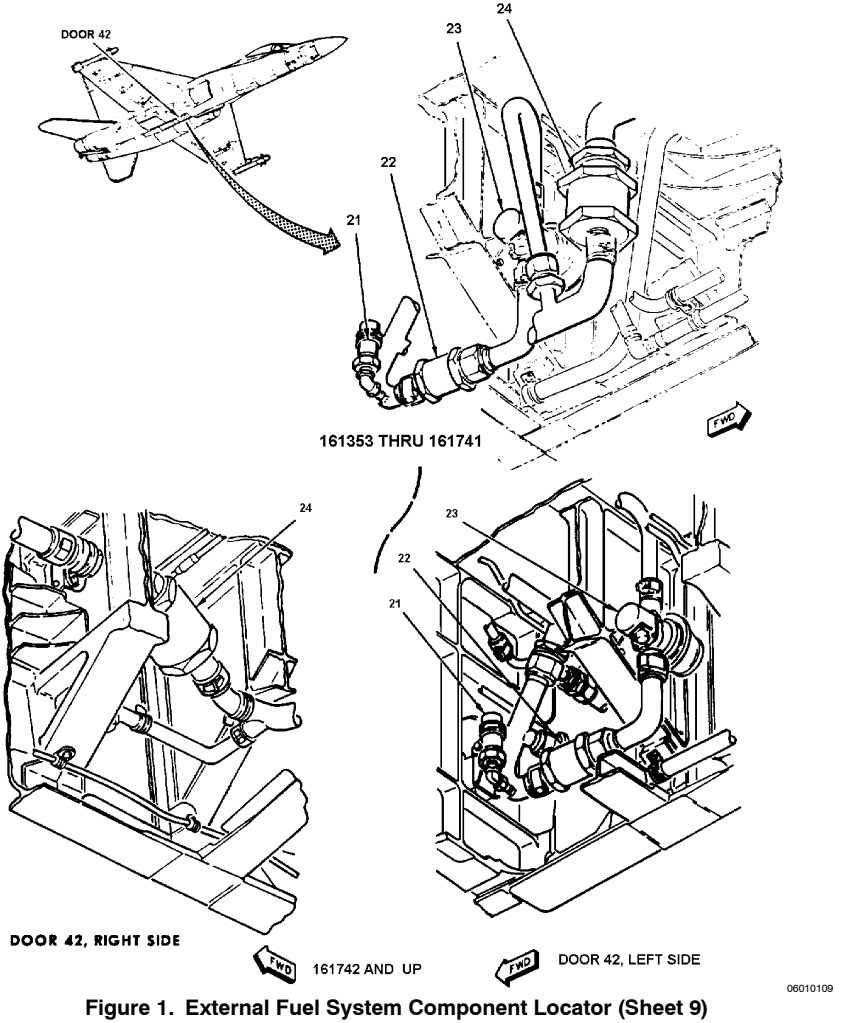


Figure 1. External Fuel System Component Locator (Sheet 9)

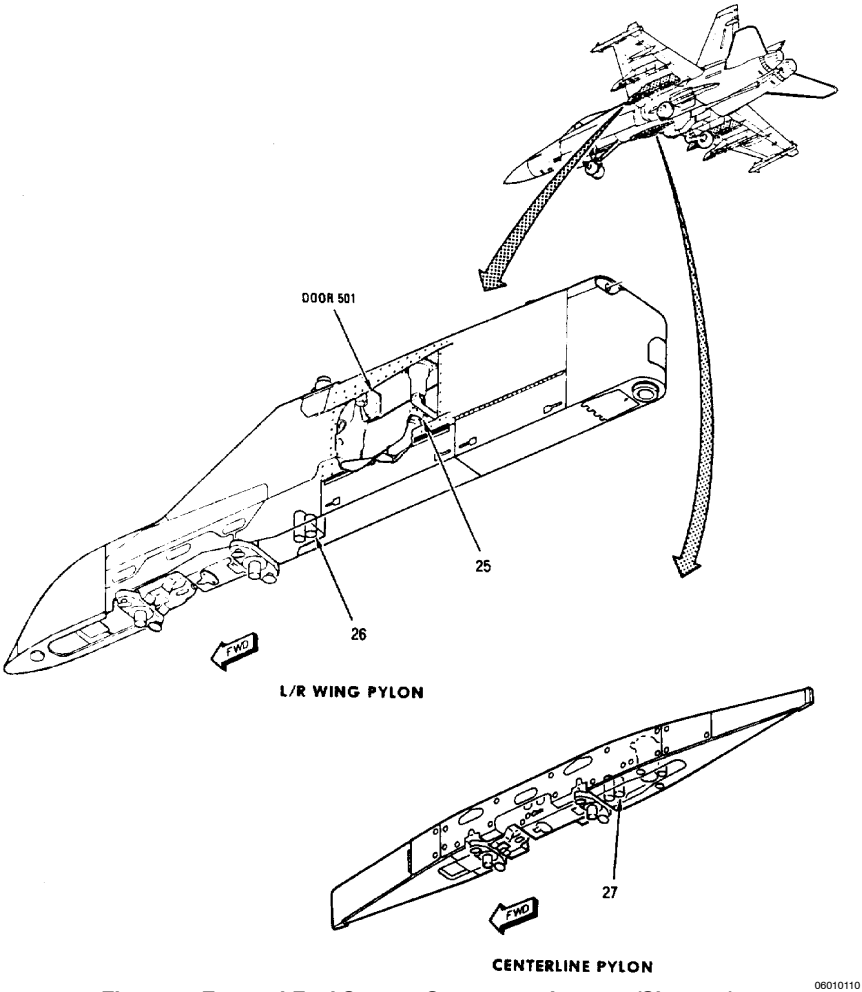
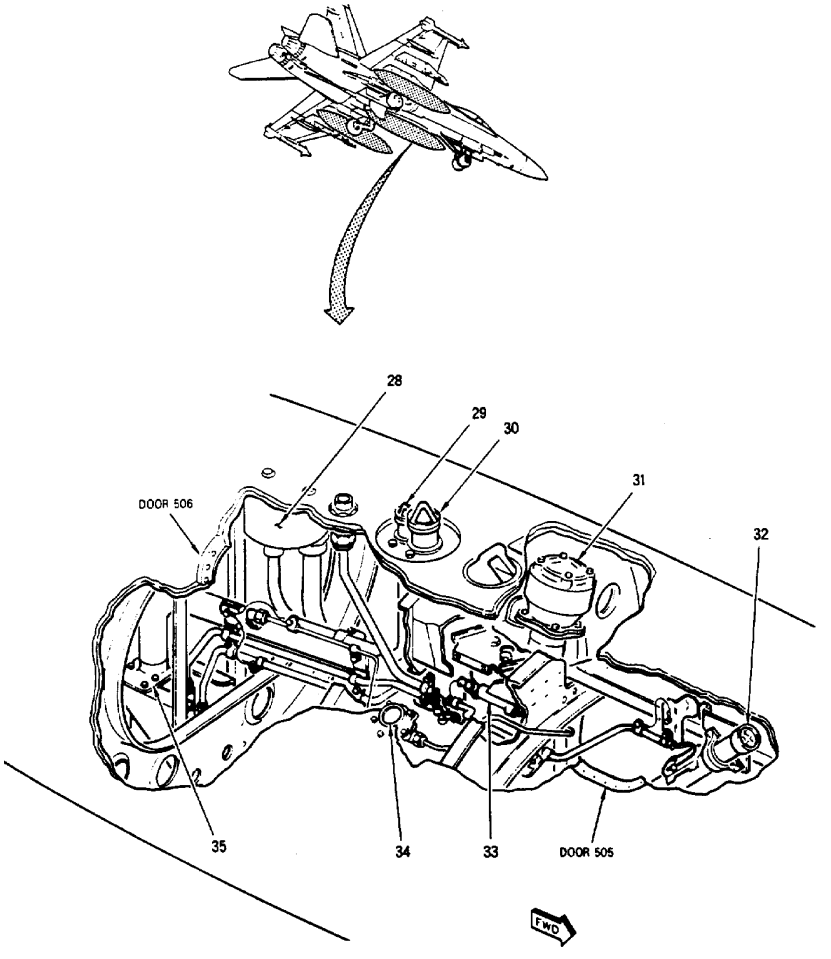


Figure 1. External Fuel System Component Locator (Sheet 10)



AIRCRAFT FUEL TANK FPU-6/A(ELLIPTICAL) 06010111

Figure 1. External Fuel System Component Locator (Sheet 11)

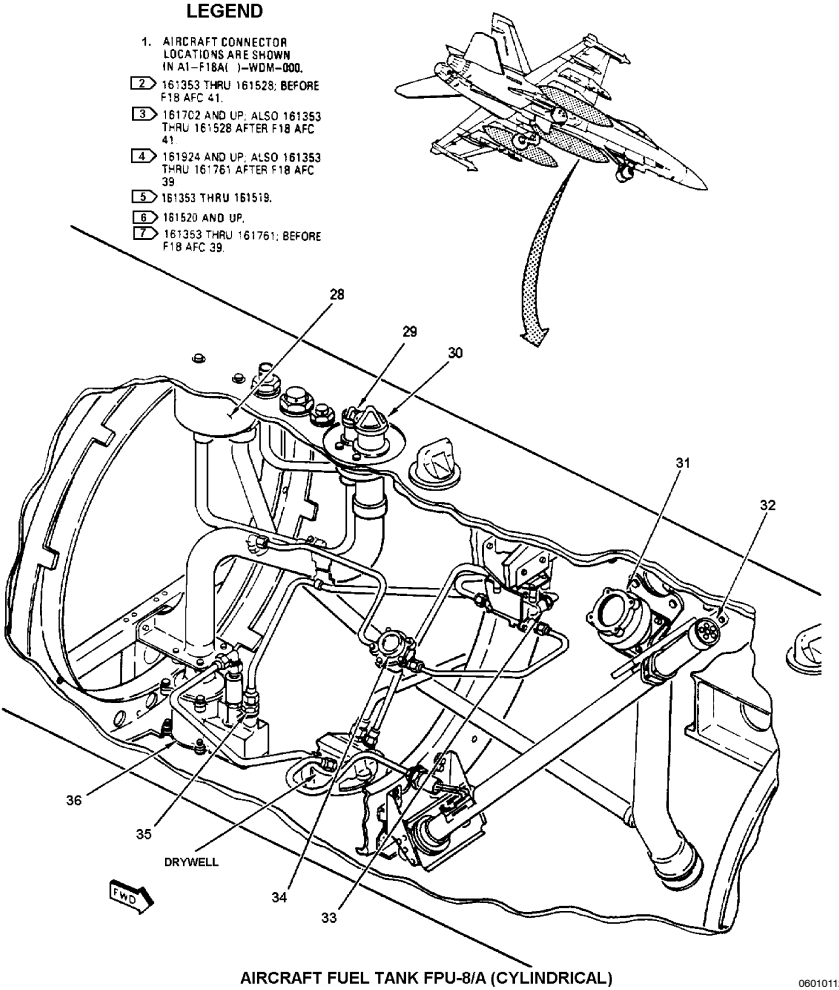


Figure 1. External Fuel System Component Locator (Sheet 12)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

EXTERNAL FUEL SYSTEM

EFFECTIVITY: 161353 THRU 161761 BEFORE F/A18 AFC 39

Reference Material

None

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Record of Applicable Technical Directives

Type Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A18 AFC 41	31 Jan 90	Installation of Equipment Structure, Wiring and Attaching Hardware (ECP MDA-F18-00054C1)	1 Nov 86	-

LEGEND

FUEL — HIGHWAY FOR MULTIPLE FUEL PATTERNS

REFUEL

REGULATED AIR

REFUEL/TRANSFER

TRANSFER MOTIVE FLOW

VENT

TELELIGHT

⊠ IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF CONNECTOR. SEE NOTE 1.

1. CONTINUITY TESTS:

   A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18AC-WDM-000.

   B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.

   C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RX1 SCALE.

   D. WHEN TESTING CONTINUITY, TEST FOR:

      (1) SHORTS TO GROUND.
      (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
      (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
      (4) SHIELD CONTINUITY.

   E. WHEN ELECTRICAL POWER IS OFF, 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS ON CONNECTORS (IDENTIFIED BY ⊠) MAKE SURE MULTIMETER LEADS/ JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY.

2. NONSTANDARD SYMBOLS

   ⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1.

(3) ARRESTING GEAR SYSTEM SCHEMATIC, A1-F18AC-130-500 WP010 00.

(4) LANDING GEAR CONTROLLED RELAYS SYSTEM SCHEMATIC A1-F18AC-130-500, WP006 00.

(5) FUEL QUANTITY LOW LEVEL WARNING SYSTEM SCHEMATIC, WP013 00.

(6) INFLIGHT REFUELING SYSTEM SCHEMATIC, WP005 00

(7) FUEL PRESSURIZATION AND VENT SYSTEM SCHEMATIC WP011 00.

(8) AIR CYCLE AIR CONDITIONING SYSTEM SCHEMATIC A1-F18AC-410-500, WP007 00.

(9) REFUEL/DEFUEL SYSTEM SCHEMATIC, WP004 00

(10) INTERNAL FUEL TRANSFER, SYSTEM SCHEMATIC, WP007 00

(11) FUEL QUANTITY GAGING SYSTEM SCHEMATIC, WP012 00

(12) EXTERNAL FUEL TANK DISPLAY SCHEMATIC, A1-F18AC-740-500, WP012 00.

(13) FUEL PRESSURIZATION AND VENT SYSTEM MAINTENANCE CODE AND CAUTION SCHEMATIC, WP011 00.

(14) POWER DISTRIBUTION SCHEMATIC, A1-F18AC-420-500, WP005 00.

(15) F/A-18A.

(16) F/A-18B.

(17) 161353 THRU 161528 BEFORE F/A18 AFC 041.

(18) 161702 AND UP; ALSO 161353 THRU 161528 AFTER F/A18 AFC 041.

(19) 161735 AND UP.

06020101

Figure 1. External Fuel System Schematic, 161353 THRU 161761 BEFORE F/A18 AFC 039 (Sheet 1)

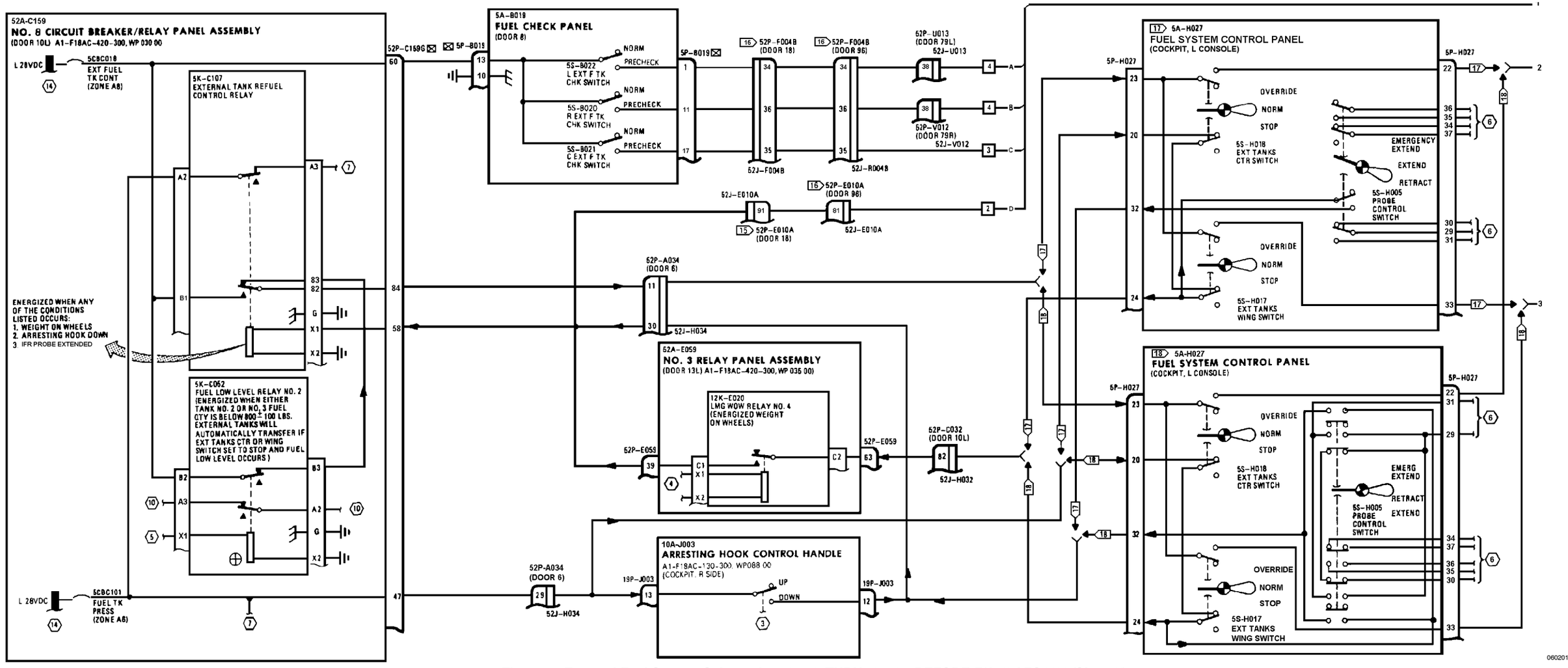


Figure 1. External Fuel System Schematic, 161353 THRU 161761 BEFORE F/A18 AFC 039 (Sheet 2)

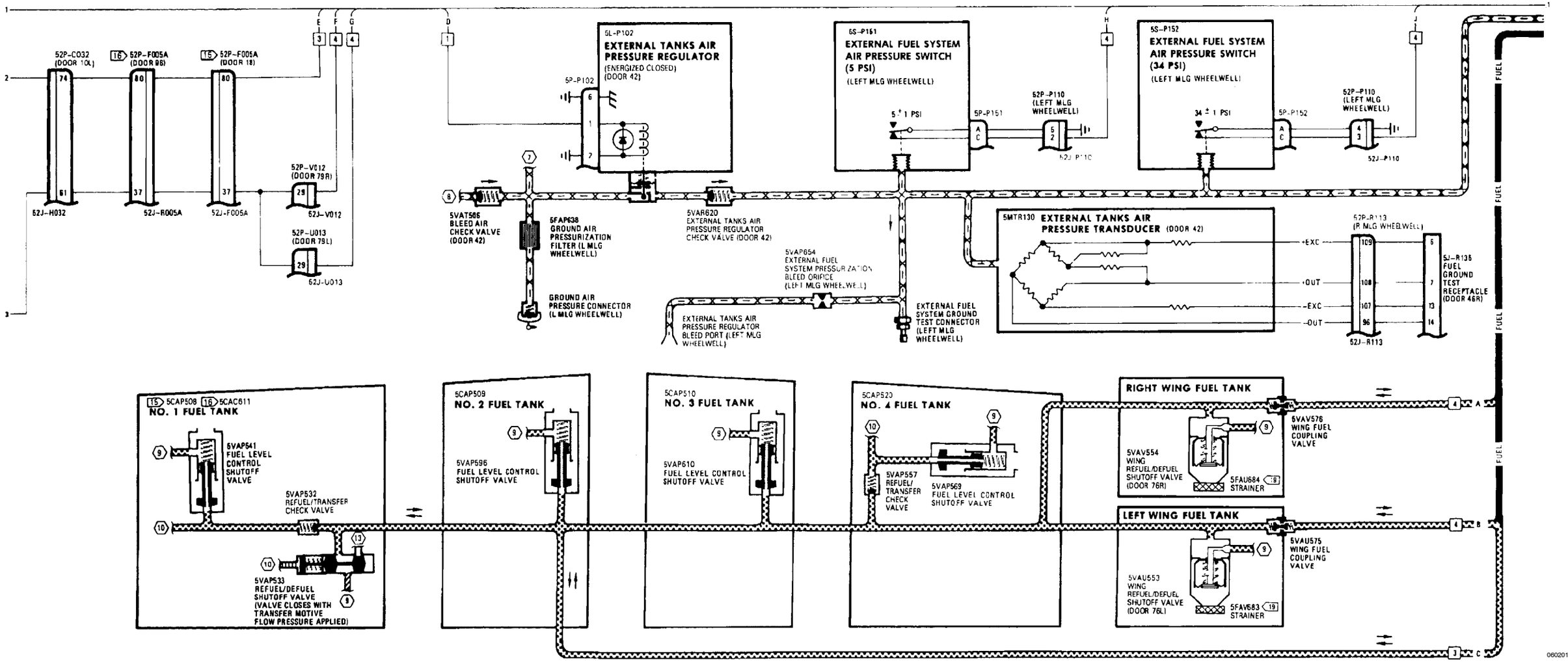


Figure 1. External Fuel System Schematic, 161353 THRU 161761 BEFORE F/A18 AFC 039 (Sheet 3)

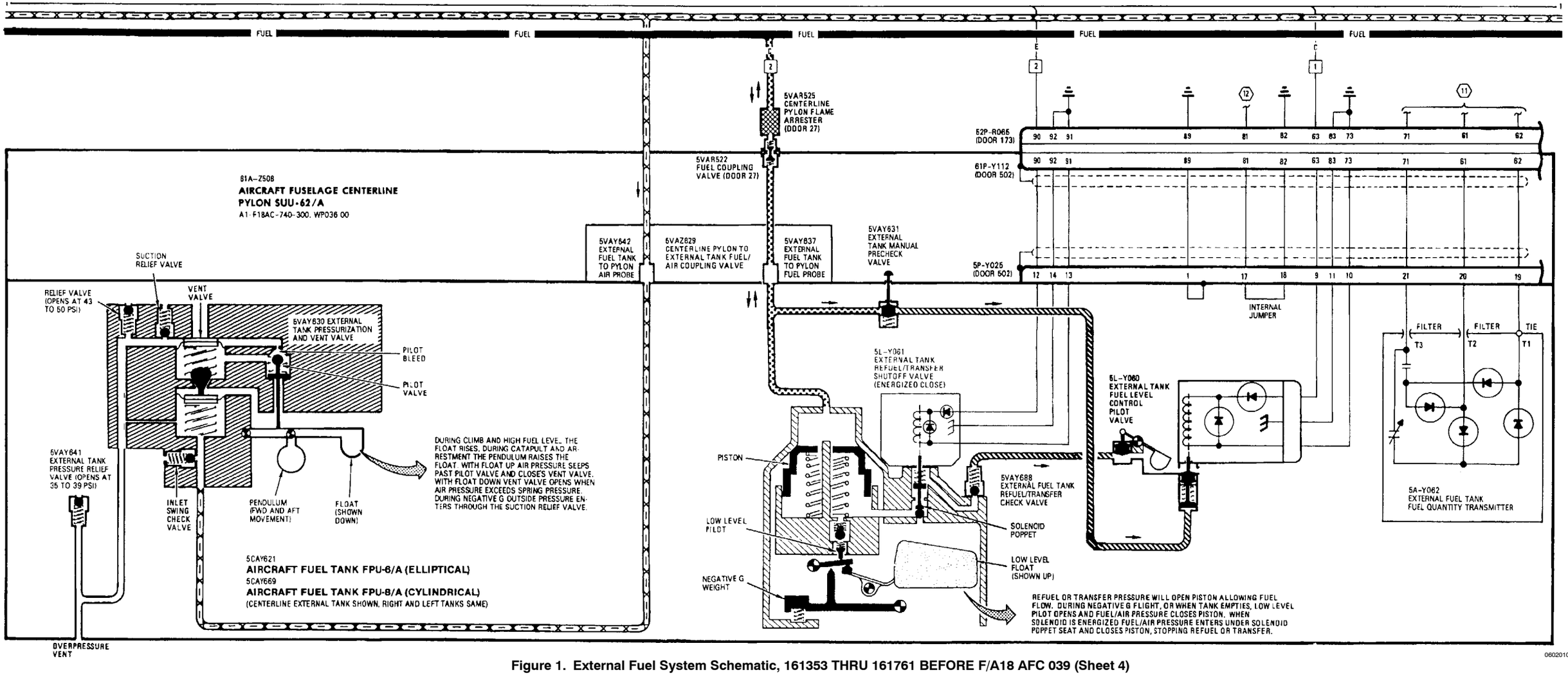
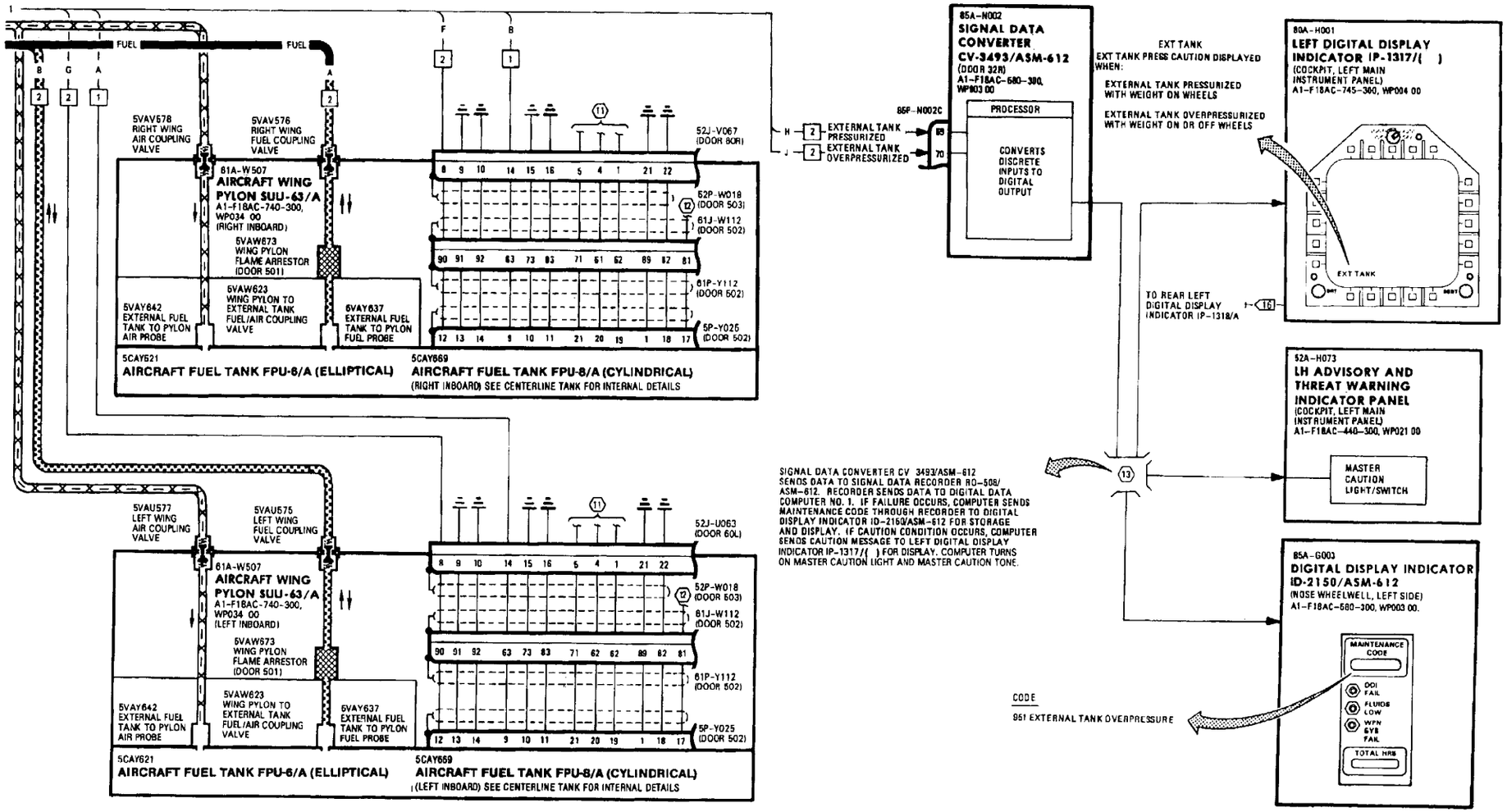


Figure 1. External Fuel System Schematic, 161353 THRU 161761 BEFORE F/A18 AFC 039 (Sheet 4)



06020105

Figure 1. External Fuel System Schematic, 161353 THRU 161761 BEFORE F/A18 AFC 039 (Sheet 5)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

EXTERNAL FUEL SYSTEM

EFFECTIVITY: 161924 AND UP; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 39

Reference Material

None

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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 39	31 Jan 90	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA-F/A-18-00072C1)	1 Nov 86	-

LEGEND

- FUEL — HIGHWAY FOR MULTIPLE FUEL PATTERNS
- REFUEL
- REGULATED AIR
- REFUEL/TRANSFER
- TRANSFER MOTIVE FLOW
- VENT

1. CONTINUITY TESTS:

   A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.

   B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.

   C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RX1 SCALE.

   D. WHEN TESTING CONTINUITY, TEST FOR:

      (1) SHORTS TO GROUND.
      (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
      (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
      (4) SHIELD CONTINUITY.

   E. WHEN ELECTRICAL POWER IS OFF, 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS ON CONNECTORS (IDENTIFIED BY ⊠) MAKE SURE MULTIMETER LEADS/JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY.

2. NONSTANDARD SYMBOLS

   ⊕ IDENTIFIES RELAY USED TO SWTICH TO LOW LEVEL CURRENT. SEE NOTE 1.

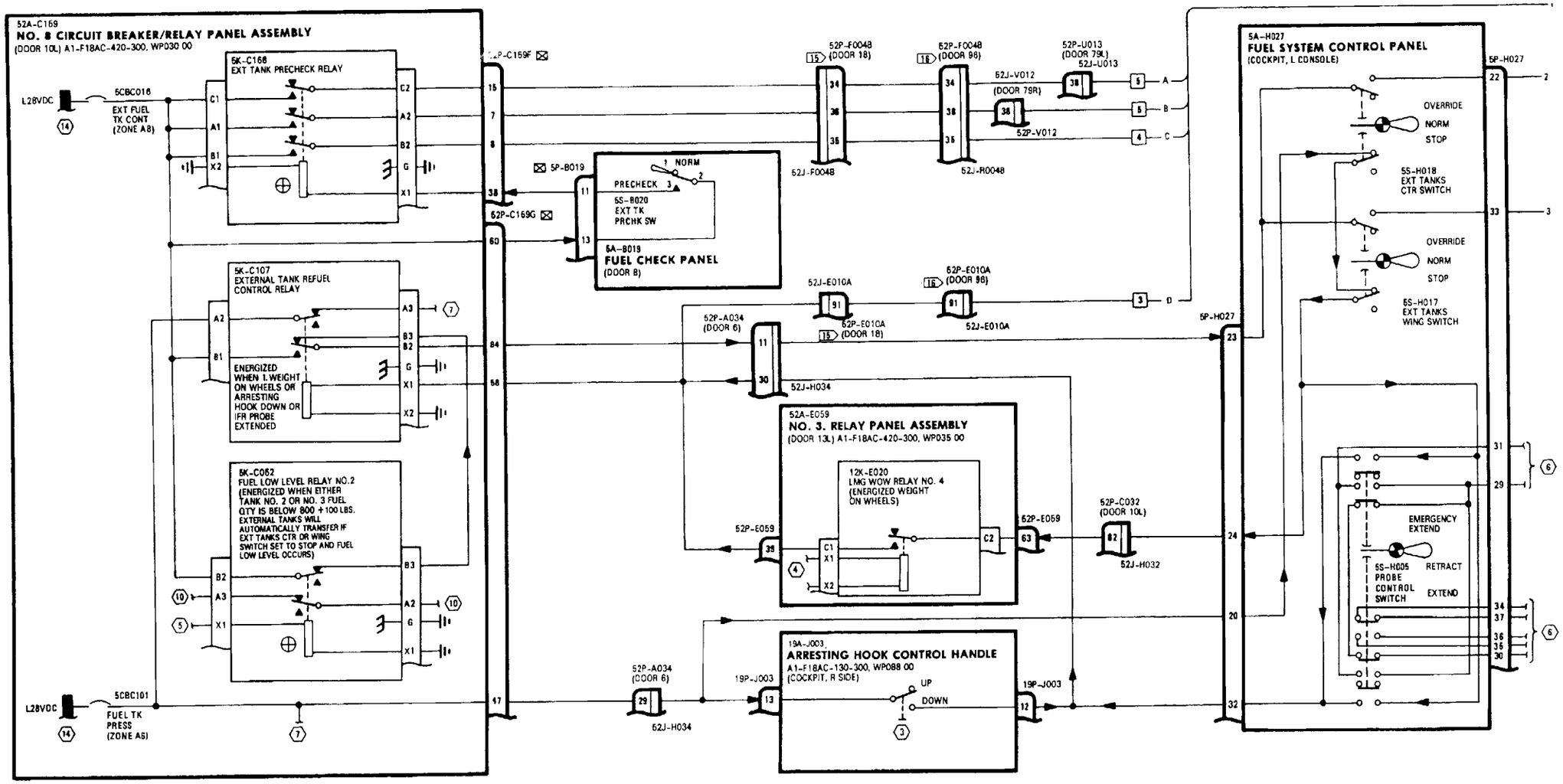
   TELELIGHT

   ⊠ IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR. SEE NOTE 1.

3. ARRESTING GEAR SCHEMATIC, A1-F18AC-130-500 WP01D 00.
4. LANDING GEAR CONTROLLED RELAYS SYSTEM SCHEMATIC, A1-F18AC-130-500, WP003 00.
5. FUEL QUANTITY LOW LEVEL WARNING SYSTEM SCHEMATIC, WP013 00.
6. INFLIGHT REFUELING SYSTEM SCHEMATIC, WP005 00.
7. FUEL PRESSURIZATION AND VENT SYSTEM SCHEMATIC WP011 00.
8. AIR CYCLE AIR CONDITING SYSTEM SCHEMATIC A1-F18AC-410-500, WP007 00.
9. REFUEL/DEFUEL SYSTEM SCHEMATIC, WP004 00.
10. INTERNAL FUEL TRANSFER SYSTEM SCHEMATIC, WP007 00.
11. FUEL QUANTITY GAGING SYSTEM SCHEMATIC, WP012 00.
12. EXTERNAL FUEL TANK DISPLAY SCHEMATIC, A1-F18AC-740-500, WP012 00.
13. FUEL PRESSURIZATION AND VENT SYSTEM MAINTENANCE CODE AND CAUTION SCHEMATIC, WP011 00.
14. POWER DISTRIBUTION SCHEMATIC, A1F18AC-420-500 WP005 00.
15. F/A-18A.
16. F/A-18B.
17. 162445 AND UP.
18. 161735 AND UP.

06040101

Figure 1. External Fuel System Schematic, 161924 AND UP; ALSO 161353 THRU 161761 AFTER F/A18 AFC 039 (Sheet 1)



06040102

Figure 1. External Fuel System Schematic, 161924 AND UP; ALSO 161353 THRU 161761 AFTER F/A18 AFC 039 (Sheet 2)

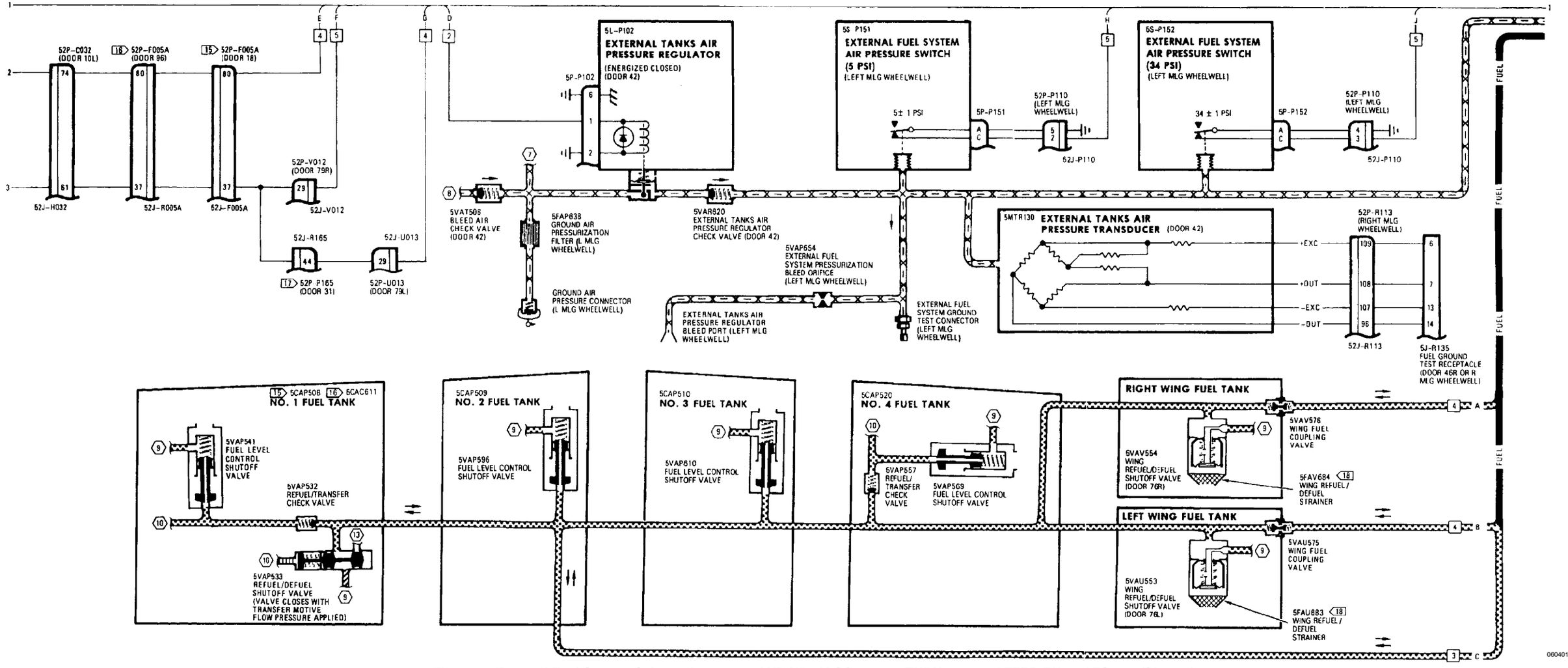


Figure 1. External Fuel System Schematic, 161924 AND UP; ALSO 161353 THRU 161761 AFTER F/A18 AFC 039 (Sheet 3)

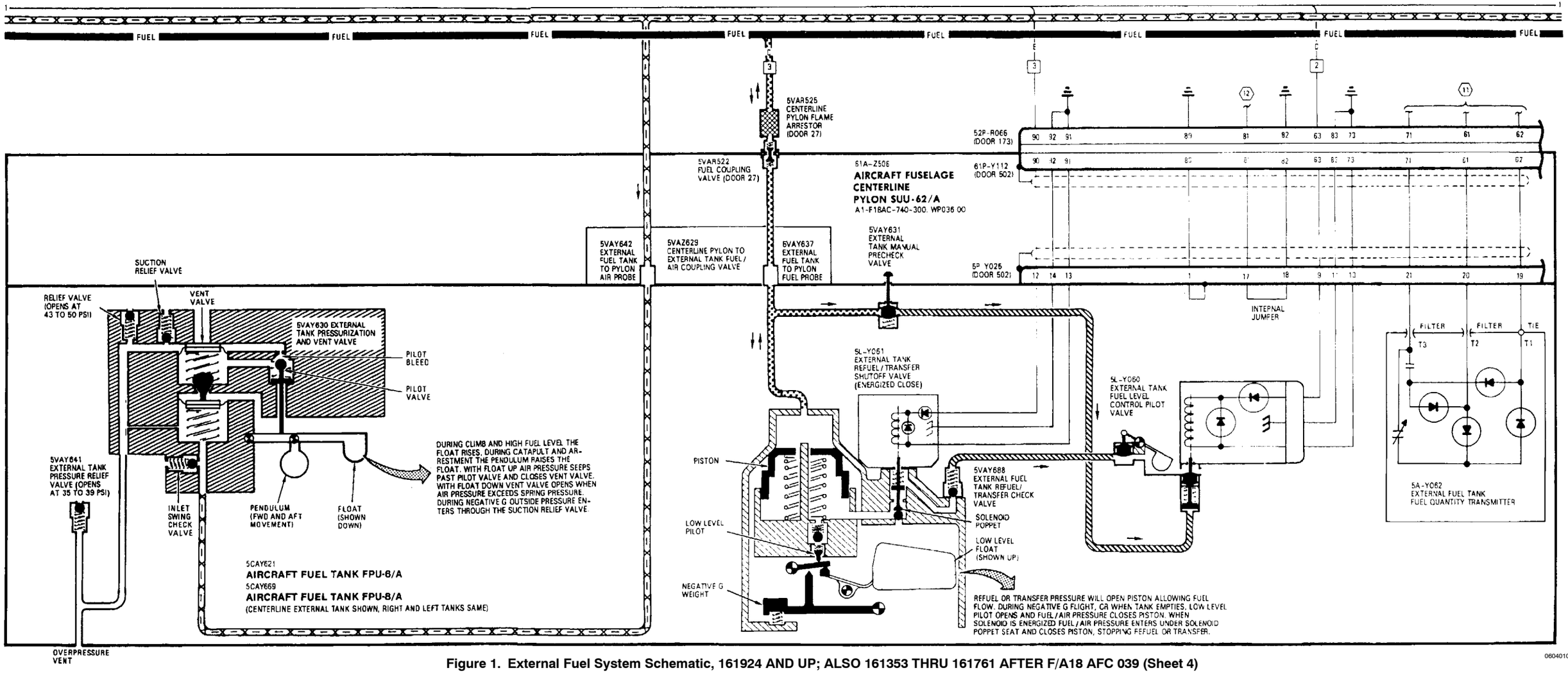
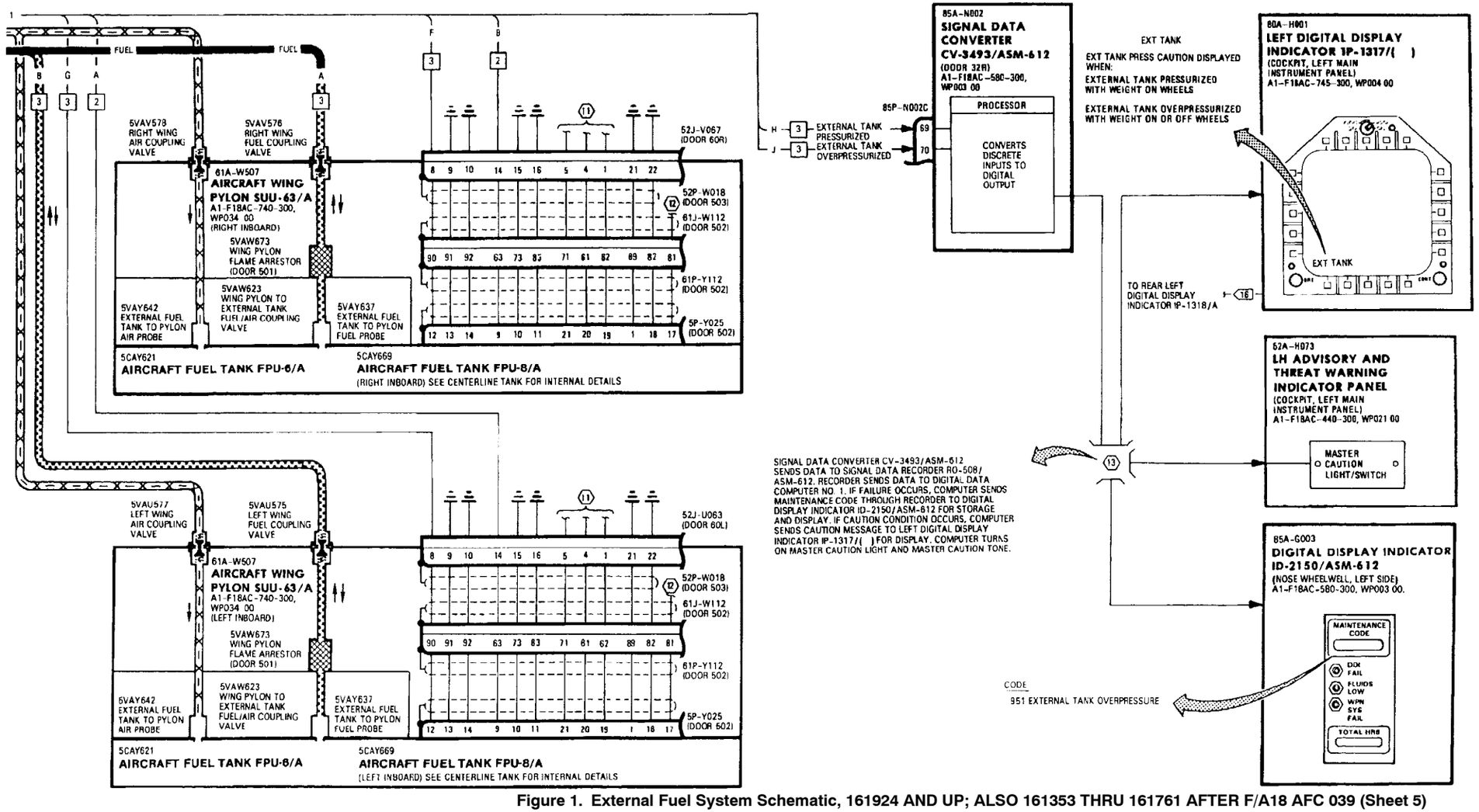


Figure 1. External Fuel System Schematic, 161924 AND UP; ALSO 161353 THRU 161761 AFTER F/A18 AFC 039 (Sheet 4)



06040105

Figure 1. External Fuel System Schematic, 161924 AND UP; ALSO 161353 THRU 161761 AFTER F/A18 AFC 039 (Sheet 5)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

INTERNAL FUEL TRANSFER SYSTEM

Title	WP Number
Internal Fuel Transfer System Component Locator	007 01
Internal Fuel Transfer System 161353 THRU 161519 BEFORE F18 AFC 21, 39 AND 53	007 02
Internal Fuel Transfer System 161520 THRU 161761	007 03
Internal Fuel Transfer System Maintenance Code Schematic	007 04
Fuel System Test Mode Schematics, 161520 THRU 161761 BEFORE F18 AFC 53, 39, 18 AND 21	007 05
Internal Fuel Transfer System 161924 THRU 161987; ALSO 161353 THRU 161519 AFTER F18 AFC 21, 39 AND 53	007 06
Internal Fuel Transfer System 162394 AND UP	007 07

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

INTERNAL FUEL TRANSFER SYSTEM

COMPONENT LOCATOR

Reference Material

None

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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve, and Raised Inverted Baffle (ECP MDA-F/A-18-00055)	1 Aug 86	-
F/A-18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/ Sealing of Raised Baffle in Tank 2 and 3 (ECP MDA-F/A-18-00077)	1 Aug 86	-
F/A-18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA-F/A-18-00054C1)	1 Nov 86	-
F/A-18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA-F/A-18-00072C1)	1 Nov 86	-
F/A-18 AFC 48	-	Automatic AC Bus Isolation, Incorporation of (ECP MDA-F/A-18-00121)	1 Nov 86	-

NOMENCLATURE	INDEX NO.	REF DES
AIR DATA COMPUTER CP-1334/A	6	70A-F001
CONTROL - CONVERTER C-10382/A	7	82A-F001
DIGITAL DATA COMPUTER NO. 1	10	83A-E001
DIGITAL DISPLAY INDICATOR ID-2150/ASM-612	4	85A-G003
EXT LT CONTROL PANEL ASSEMBLY	1	52A-H091
INTR WING SWITCH		5S-H026
FUEL CHECK PANEL	3	5A-B019
FUEL DIVERTER VALVE	61	
LEFT		5L-P119
RIGHT		5L-R118
FUEL LEVEL CONTROL SELECTOR VALVE	5	5VAG579
FUEL QUANTITY GAGING INTERMEDIATE DEVICE	9	5A-F014
FUSELAGE TRANSFER PRESSURE TRANSDUCER	14	5MTP126
HOT FUEL RECIRCULATION CHECK VALVE	60	
LEFT		5VAP585
RIGHT		5VAR584
LEFT DIGITAL DISPLAY INDICATOR IP-1317/ ( )	2	80A-H001
MOTIVE FLOW/BOOST PUMP	11	
LEFT		5BAS515
RIGHT		5BAT514
MOTIVE FLOW CHECK VALVE	54	
LEFT		5VAP561
RIGHT		5VAR562
NO. 1 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE	27	5VAP541
19 NO. 1 FUEL TANK FUEL LOW LEVEL SHUTOFF VALVE	23	5L-E171
NO. 1 FUEL TANK HIGH LEVEL PILOT VALVE	20	5VAP539
NO. 1 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE	25	18 5VAP538
		19 5S-E172
NO. 1 FUEL TANK REFUEL/TRANSFER CHECK VALVE	28	5VAP532
20 NO. 1 FUEL TANK TRANSFER CONTROL VALVE	22	5L-F160
NO. 1 FUEL TANK TRANSFER JET EJECTOR	24	5BAP536
NO. 1 FUEL TANK TRANSFER PILOT VALVE	26	5VAP537
9 NO. 1 FUEL TANK TRANSFER PRECHECK VALVE	30	5VAP606
NO. 1 FUEL TANK TRANSFER SHUTOFF VALVE	21	5VAP534
NO. 2 CIRCUIT BREAKER PANEL ASSEMBLY	16	52A-D024
6 NO. 2 FUEL TANK ENGINE FUEL BOOST JET EJECTOR	38	5BAP599
13 NO. 2 FUEL TANK ENGINE FUEL TURBINE BOOST PUMP	35	5VAP679
NO. 2 FUEL TANK FUEL LEVEL SENSOR	31	5VAP595
NO. 2 FUEL TANK INVERTED FLIGHT BAFFLE CHECK VALVES(4)	32	
NO. 2 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE	34	5S-R132
NO. 2 FUEL TANK TRANSFER SHUTOFF VALVE	33	5VAP597
NO. 2 FUEL TANK WASH FILTER	36	5FAP632
NO. 2 FUEL TANK GRAVITY FEED CHECK VALVE	37	5VAP600
6 NO. 3 FUEL TANK ENGINE FUEL BOOST JET EJECTOR	46	5BAP591
13 NO. 3 FUEL TANK ENGINE FUEL TURBINE BOOST PUMP	44	5BAR680
NO. 3 FUEL TANK FUEL LEVEL SENSOR	39	5VAP590
NO. 3 FUEL TANK GRAVITY FEED CHECK VALVE	45	5VAP608
NO. 3 FUEL TANK INVERTED FLIGHT BAFFLE CHECK VALVES (4)	40	

07010101

Figure 1. Internal Fuel Transfer System Component Locator (Sheet 1)

NOMENCLATURE	INDEX NO.	REF DES
NO. 3 FUEL TANK PRESSURE OPERATED INTERCONNECT VALVE	43	5S-R131
NO. 3 FUEL TANK TRANSFER SHUTOFF VALVE	41	5VAP605
NO. 3 FUEL TANK WASH FILTER	42	5FAP633
NO. 4 FUEL TANK AUTOMATIC DRAIN VALVE	51	5VAP568
NO. 4 FUEL TANK FUEL LEVEL CONTROL SHUTOFF VALVE	50	5VAP569
NO. 4 FUEL TANK HIGH LEVEL PILOT VALVE	47	5VAP556
NO. 4 FUEL TANK REFUEL/TRANSFER CHECK VALVE	52	5VAP557
14 NO. 4 FUEL TANK TRANSFER CONTROL VALVE	58	5L-R167
NO. 4 FUEL TANK TRANSFER JET EJECTOR	57	5BAP567
NO. 4 FUEL TANK TRANSFER PILOT VALVE	59	5VAP519
NO. 4 FUEL TANK TRANSFER PRECHECK VALVE	62	5VAP589
NO. 4 FUEL TANK TRANSFER SHUTOFF VALVE	56	5VAP565
NO. 4 FUEL TANK VENT TANK SCAVENGE JET EJECTOR	53	
LEFT		5BAP559
RIGHT		5BAR560
NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY	19	52A-C057
NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY	17	52A-C159
NO. 9 CIRCUIT BREAKER PANEL ASSEMBLY	18	52A-C161
REFUEL/DEFUEL SHUTOFF VALVE	29	5VAP533
SIGNAL DATA CONVERTER CV-3493/ASM-612	13	85A-N002
SIGNAL DATA RECORDER RO-508/ASM-612	8	85A-F001
TRANSFER MOTIVE FLOW CHECK VALVE	55	
LEFT		5VAP563
RIGHT		5VAR564
VENT TANK SCAVENGE CHECK VALVE	63	
LEFT		5VAS602
RIGHT		5VAT612
WING DAMAGE FUEL SHUTOFF VALVE	49	5L-R110
WING FUEL GRAVITY CHECK VALVE	48	
LEFT		5VAP587
RIGHT		5VAR588
8 WING FUEL TRANSFER TUBE/STRAINER	12	
LEFT		5FAU681
RIGHT		5FAV682
WING TRANSFER JET EJECTOR	64	
LEFT		5BAU548
RIGHT		5VAU549
7 WING TRANSFER JET EJECTOR STRAINER	65	
LEFT		5FAU685
RIGHT		5FAV686
WING TRANSFER MOTIVE FLOW PILOT VALVE	67	
LEFT		5VAU528
RIGHT		5VAV529
WING TRANSFER PRESSURE TRANSDUCER	15	5MTR125
WING TRANSFER MOTIVE FLOW SHUTOFF VALVE	66	
LEFT		5VAU543
RIGHT		5VAV544

07010102

Figure 1. Internal Fuel Transfer System Component Locator (Sheet 2)

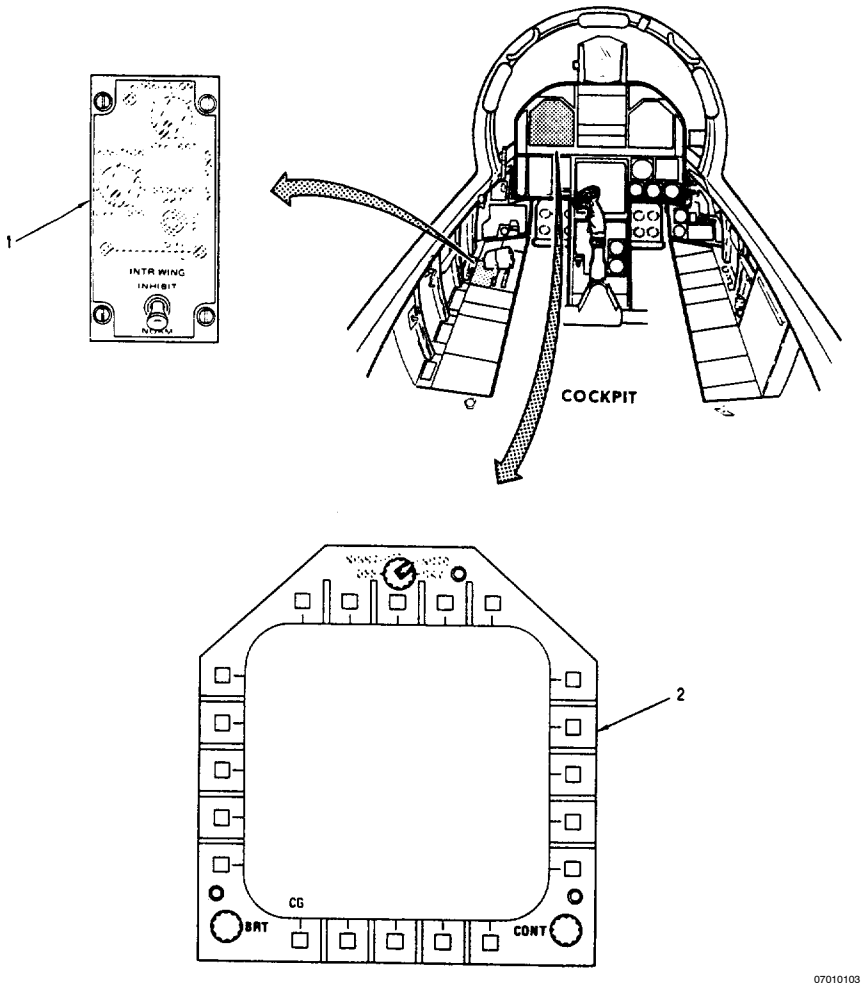


Figure 1. Internal Fuel Transfer System Component Locator (Sheet 3)

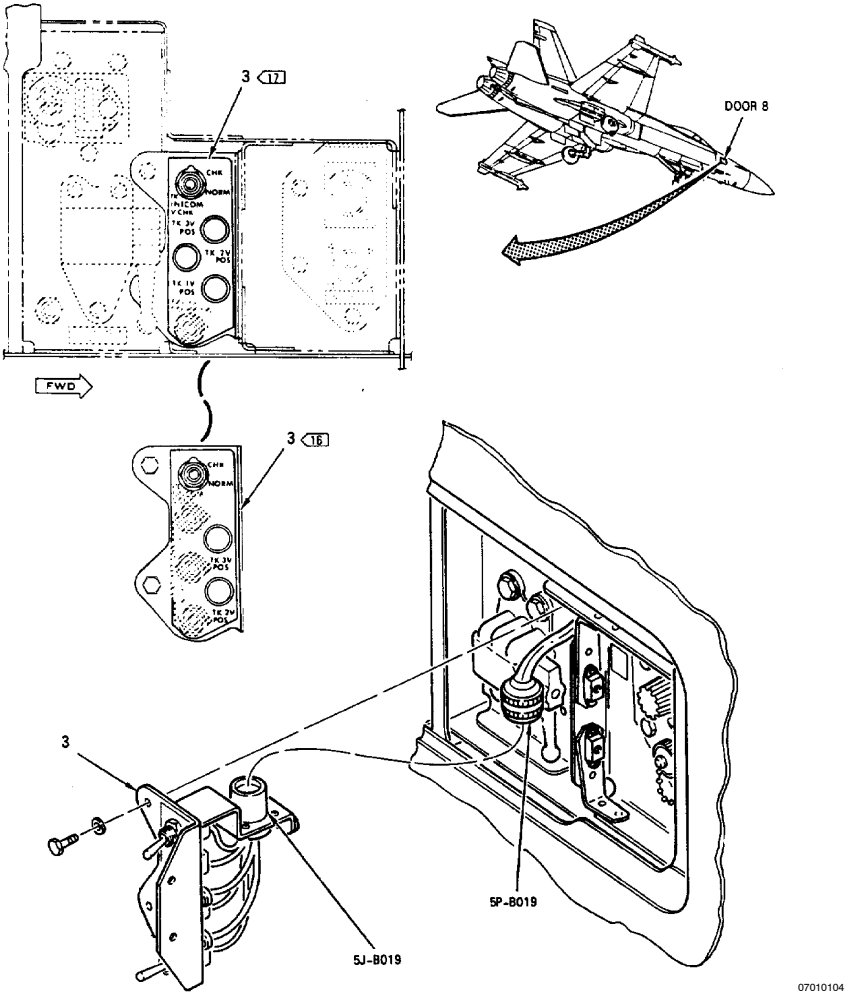


Figure 1. Internal Fuel Transfer System Component Locator (Sheet 4)

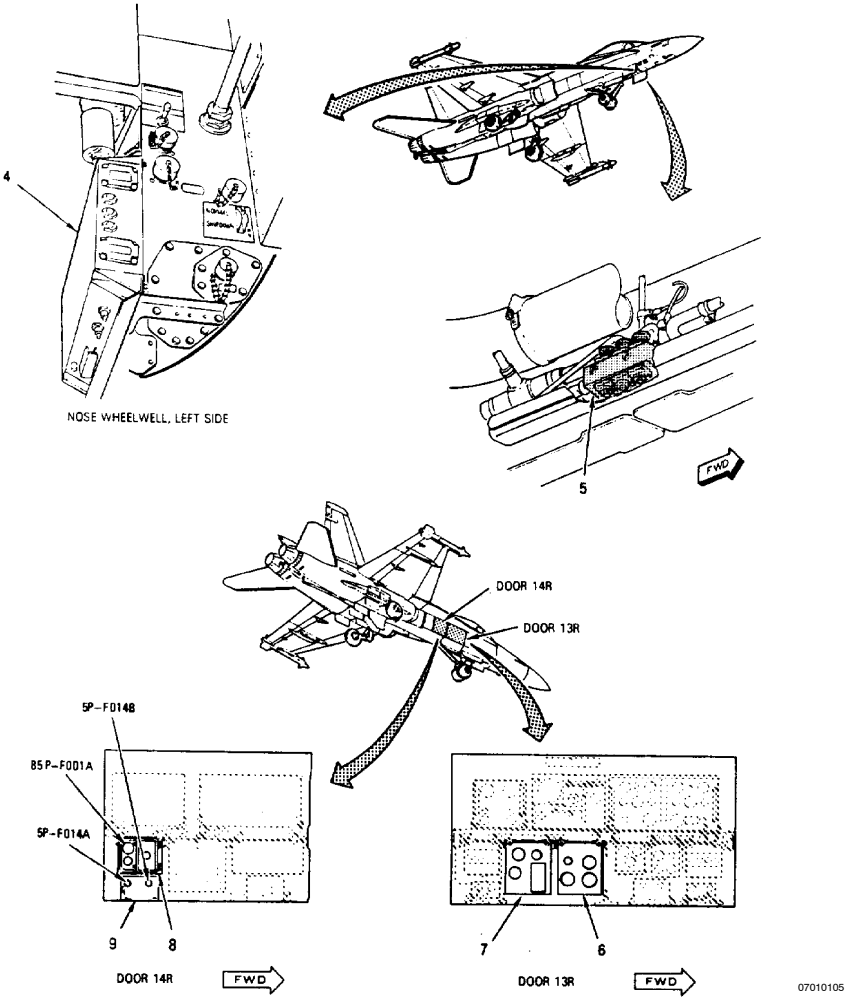


Figure 1. Internal Fuel Transfer System Component Locator (Sheet 5)

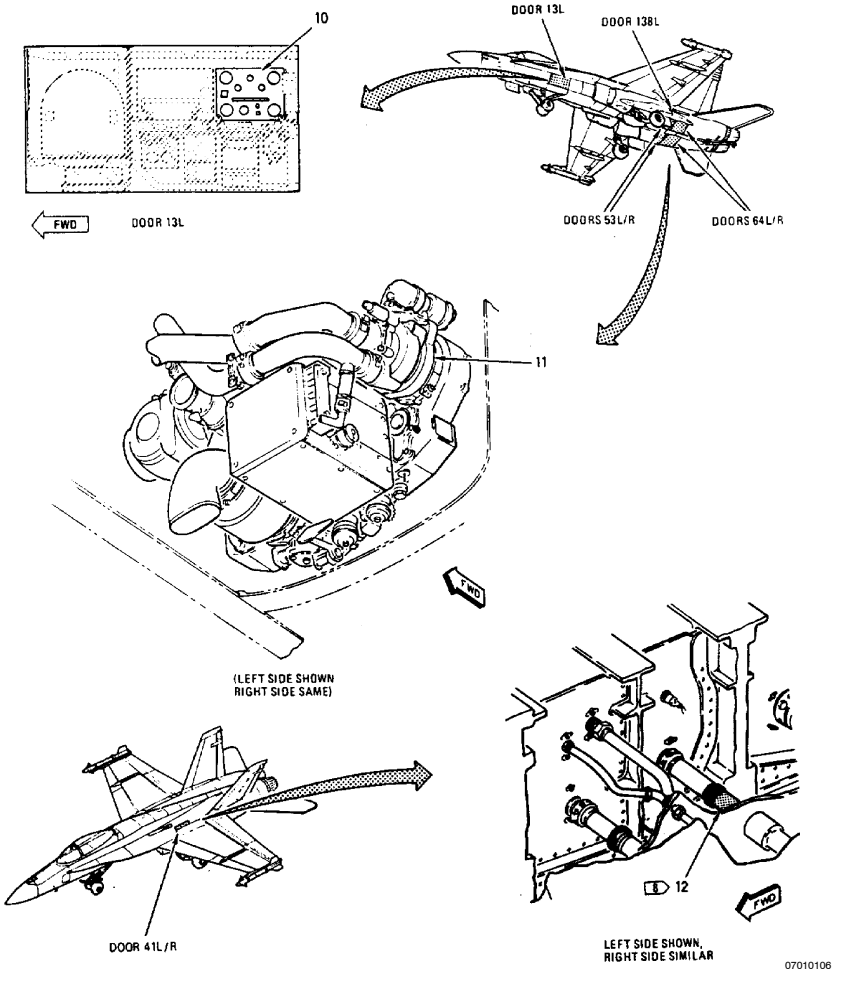


Figure 1. Internal Fuel Transfer System Component Locator (Sheet 6)

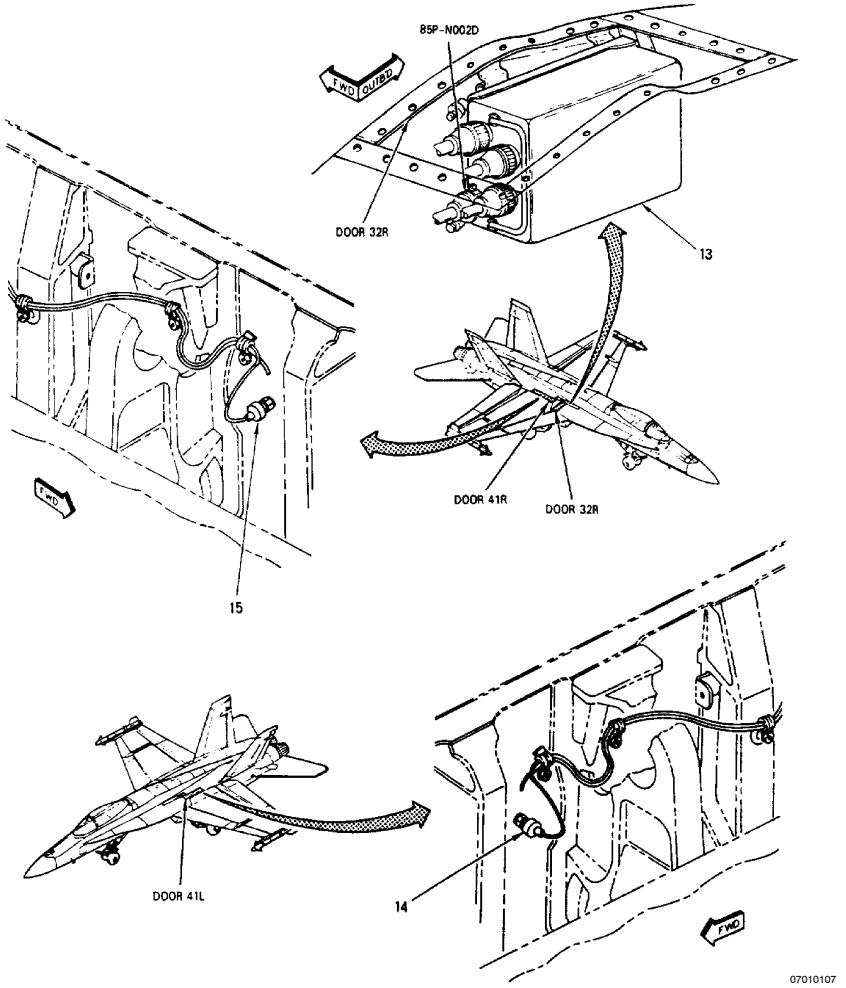
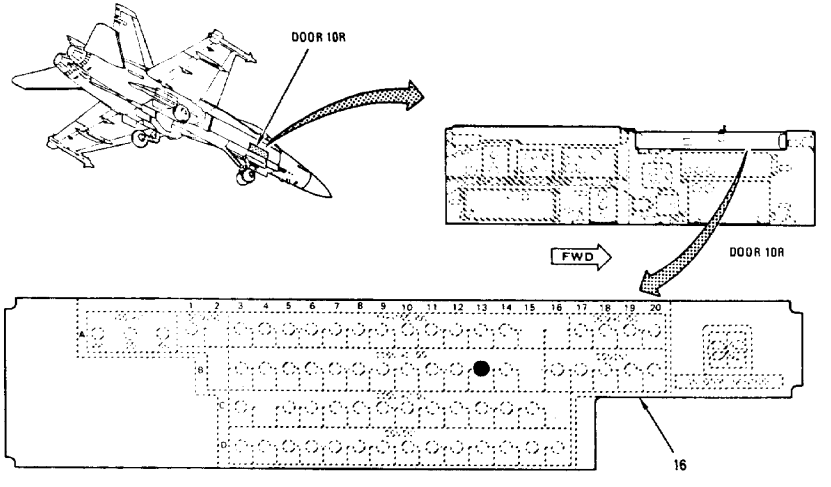
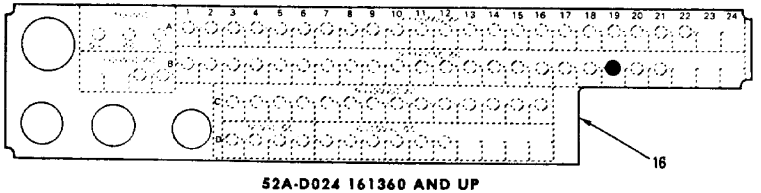


Figure 1. Internal Fuel Transfer System Component Locator (Sheet 7)



52A-D024 161353 THRU 161359

52A-D024	NO. 2 CIRCUIT BREAKER PANEL ASSEMBLY		
ZONE	REF DES	NOMENCLATURE	BUS
B13	5CB0044	FUEL QUAN IND	R115VAC φB

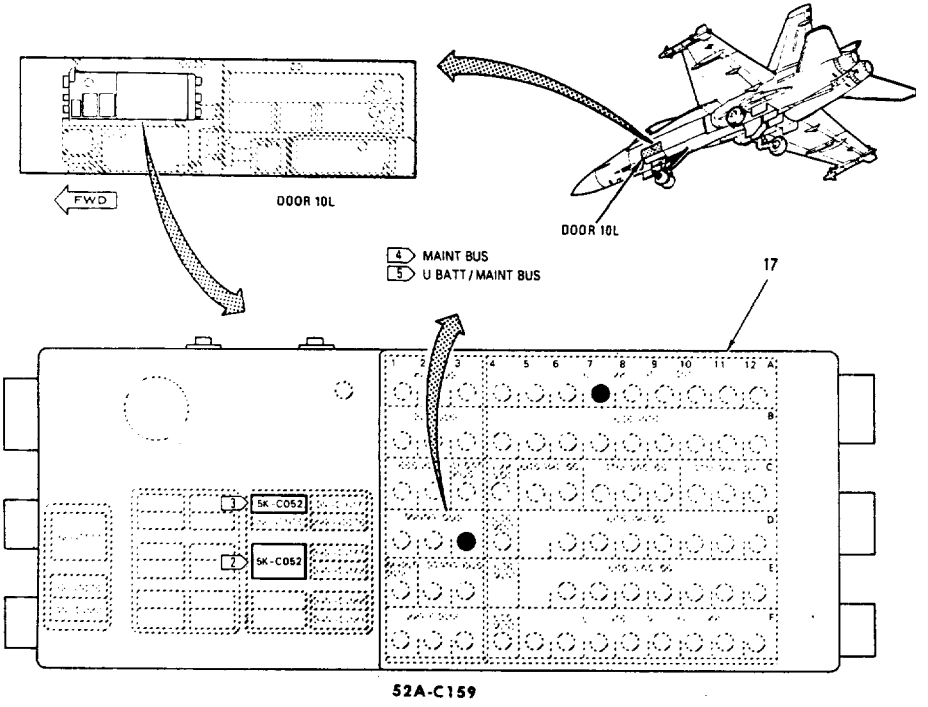


52A-D024 161360 AND UP

52A-D024	NO. 2 CIRCUIT BREAKER PANEL ASSEMBLY		
ZONE	REF DES	NOMENCLATURE	BUS
B19	5CB0044	FUEL QUAN IND	R115VAC φB

07010108

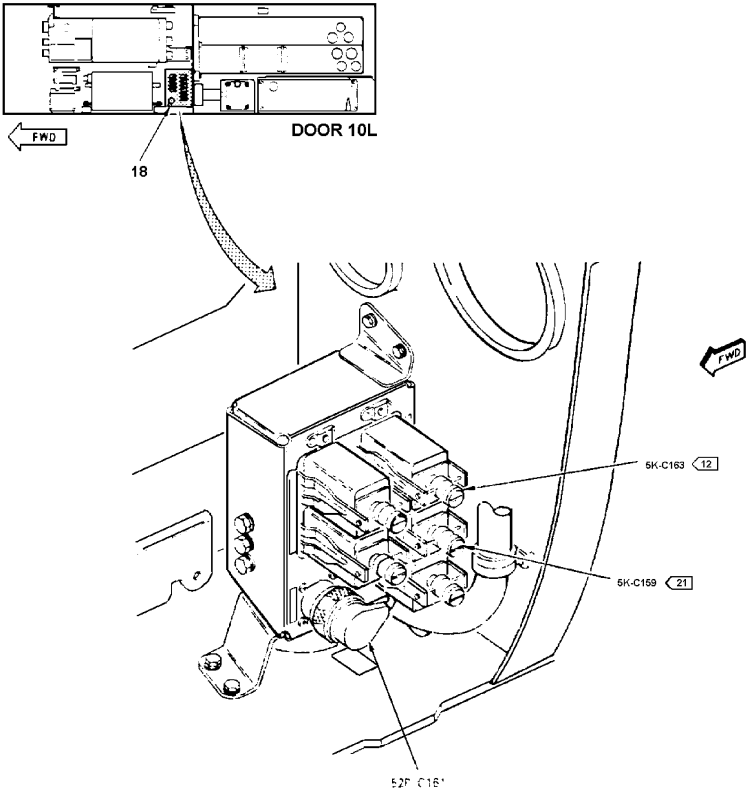
Figure 1. Internal Fuel Transfer System Component Locator (Sheet 8)



52A-C159 NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
A7	5C8C115	WING FUEL	L 28VDC
D3	5C8C023	FUEL V POSITION	4 MAINT 24/28VDC
			5 U BATT/ MAINT 24/28VDC
	5K-C052	FUEL LOW LEVEL RELAY NO. 2	

07010109

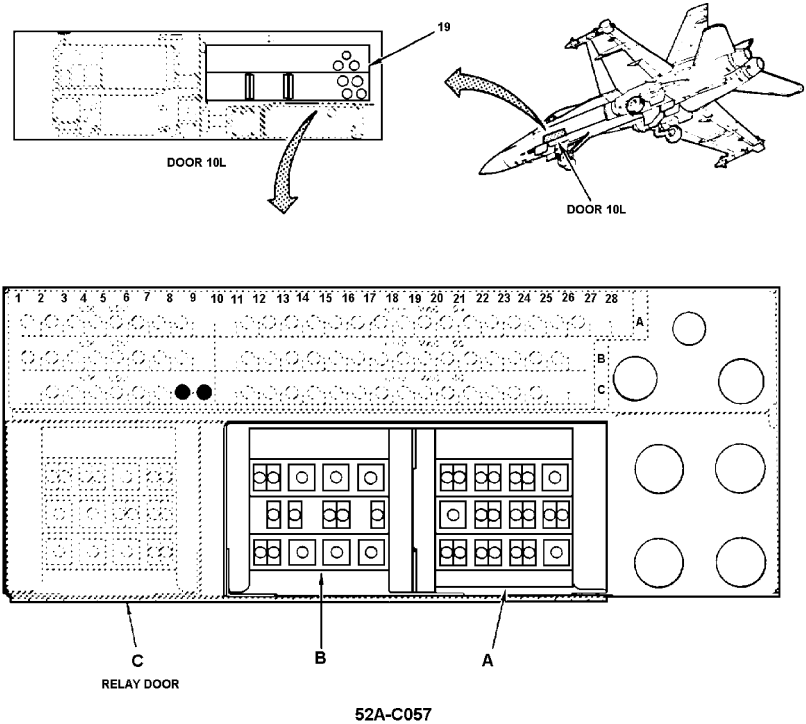
Figure 1. Internal Fuel Transfer System Component Locator (Sheet 9)



52A-C161		NO. 9 RELAY PANEL ASSEMBLY	
ZONE	REF DES	NOMENCLATURE	BUS
	21 5K-C159	TANK 1 TRANSFER TIME DELAY RELAY	
	12 5K-C163	FUEL LOW LEVEL RELAY NO 1	

07010110

Figure 1. Internal Fuel Transfer System Component Locator (Sheet 10)



52A-C057

52A-C057		NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY		
	ZONE	REF DES	NOMENCLATURE	BUS
15	C9	5CBC157	TANK 1 TRANSFER	L28VDC
19	C9	5CBC157	FUEL TRANSFER	L28VDC
14	C8	5CBC162	FUEL TEST	L28VDC
2		5K-C158	TANK 1 TRANSFER CONTROL RELAY	
11		5K-C159	TANK 1 TRANSFER TIME DELAY RELAY	
14		5K-C161	NEGATIVE G RELAY	
10		5K-C163	FUEL LOW LEVEL RELAY NO. 1	

07010111

Figure 1. Internal Fuel Transfer System Component Locator (Sheet 11)

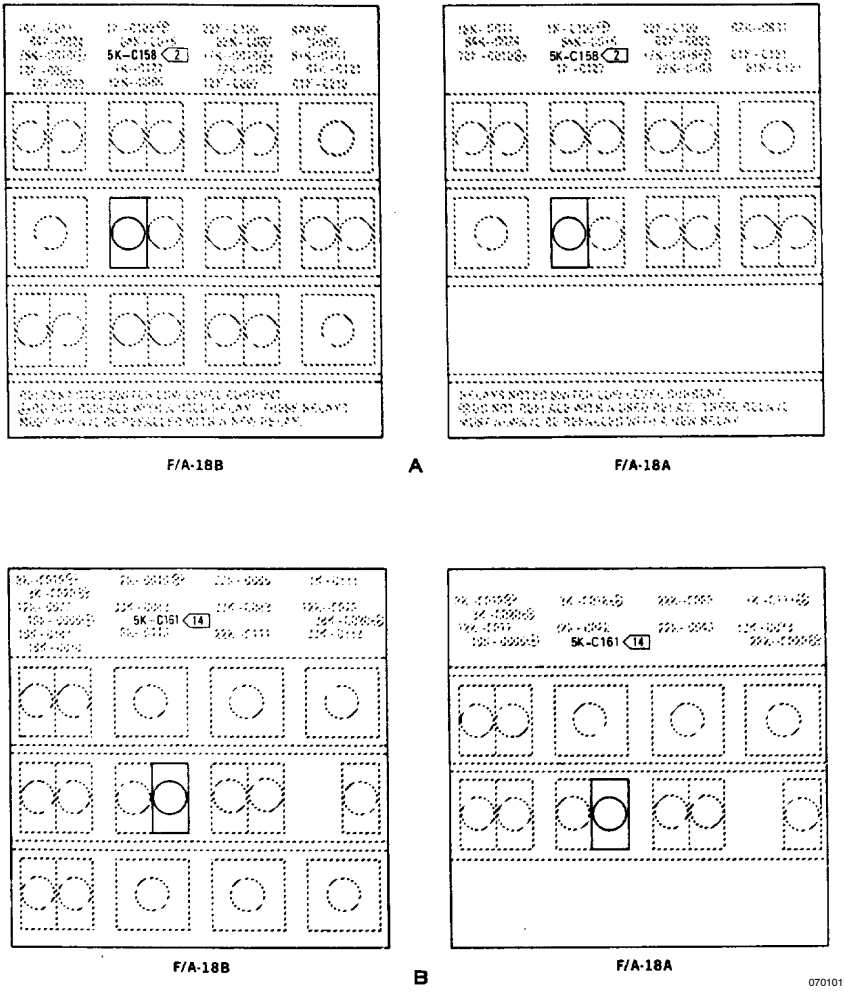
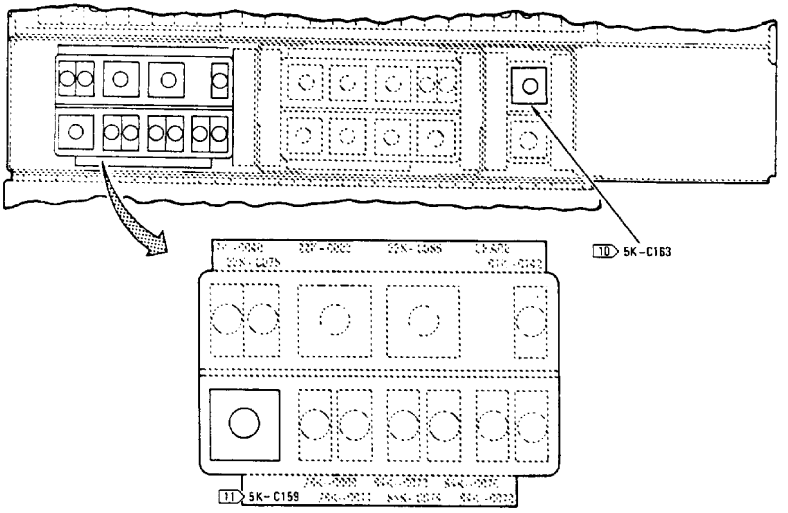


Figure 1. Internal Fuel Transfer System Component Locator (Sheet 12)



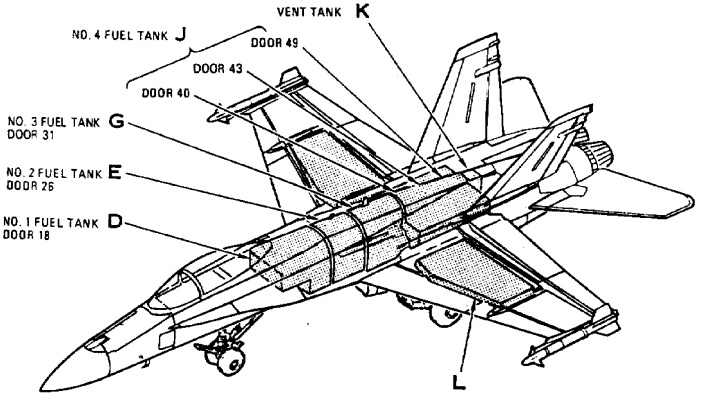


Figure 1. Internal Fuel Transfer System Component Locator (Sheet 13)

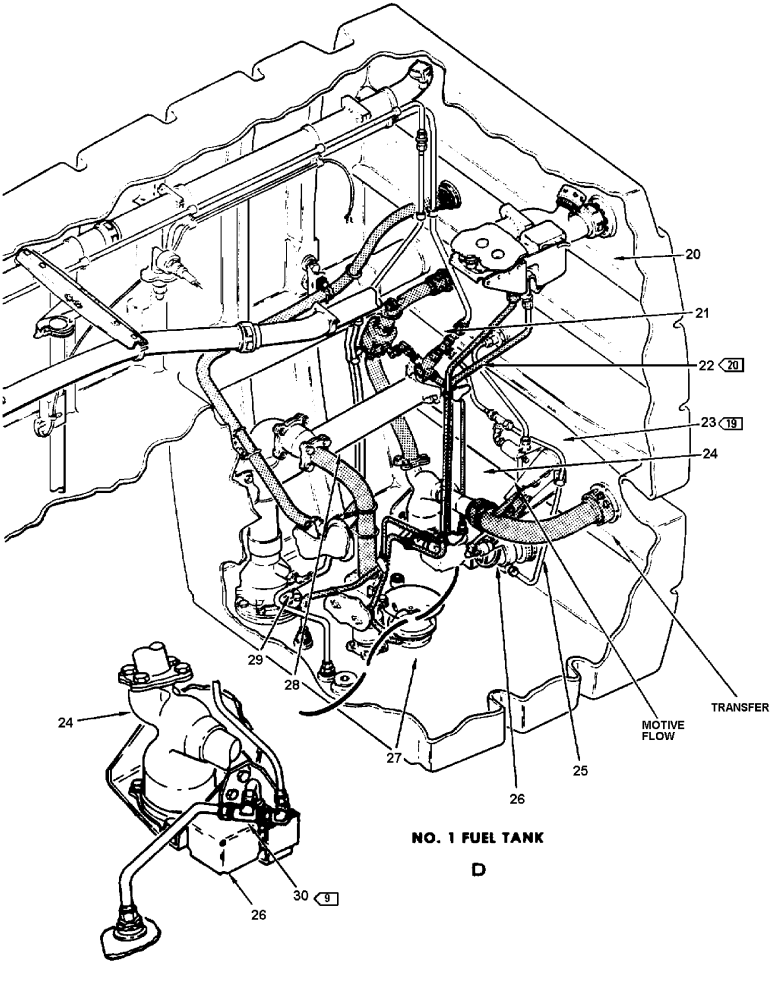


Figure 1. Internal Fuel Transfer System Component Locator (Sheet 14)

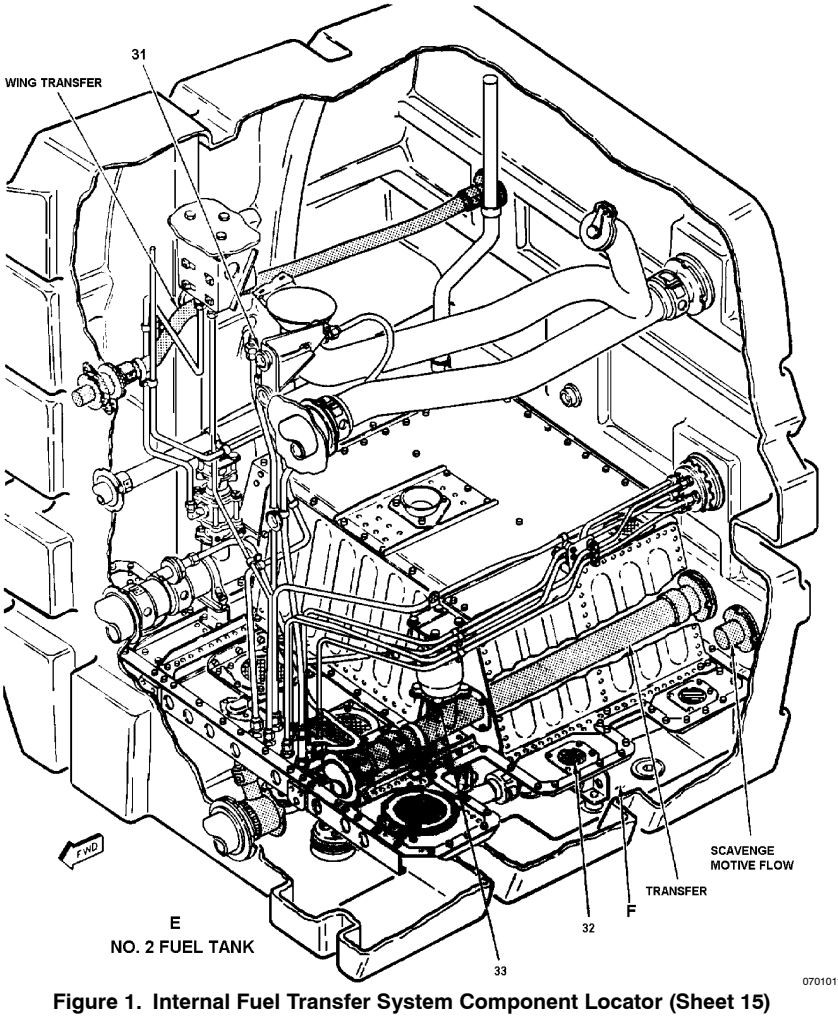


Figure 1. Internal Fuel Transfer System Component Locator (Sheet 15)

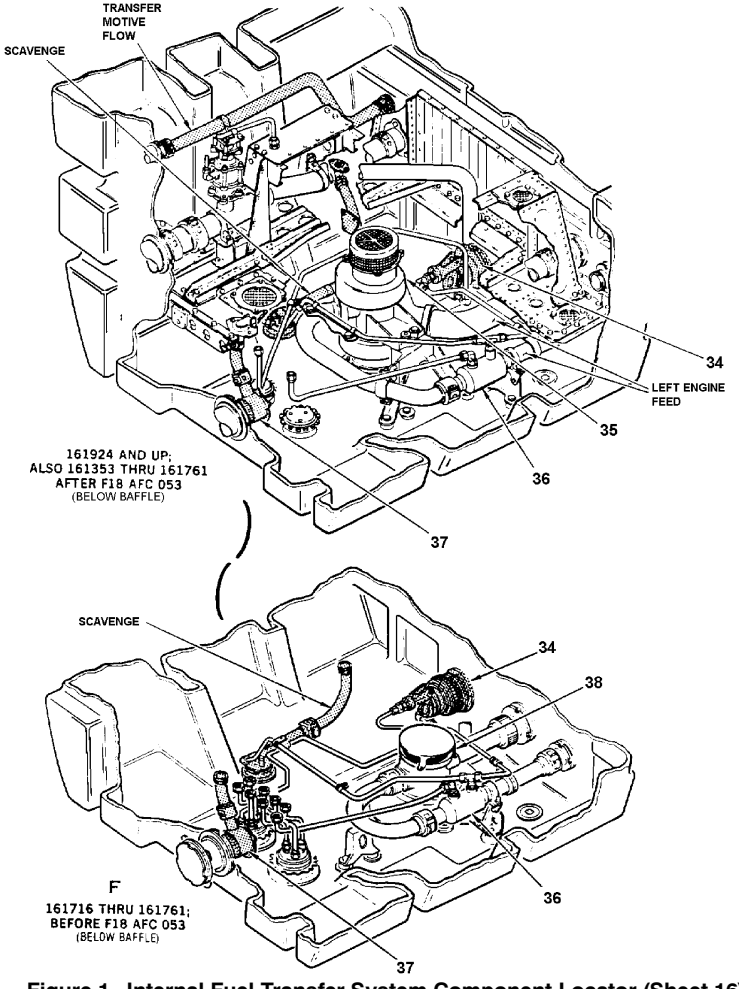


Figure 1. Internal Fuel Transfer System Component Locator (Sheet 16)

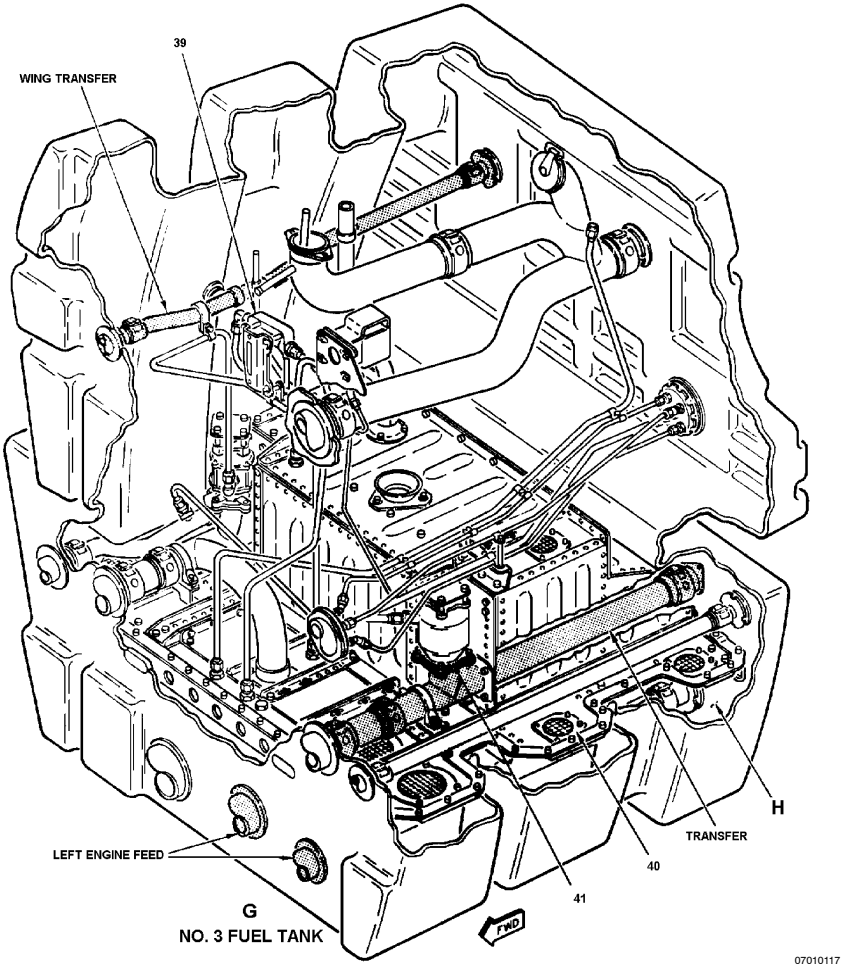


Figure 1. Internal Fuel Transfer System Component Locator (Sheet 17)

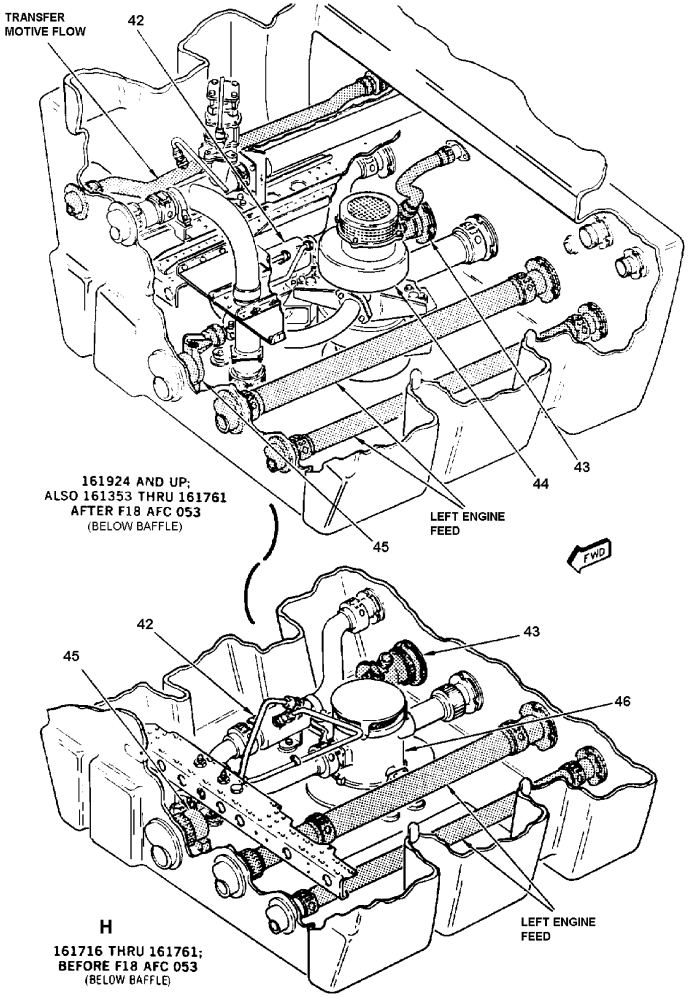


Figure 1. Internal Fuel Transfer System Component Locator (Sheet 18)

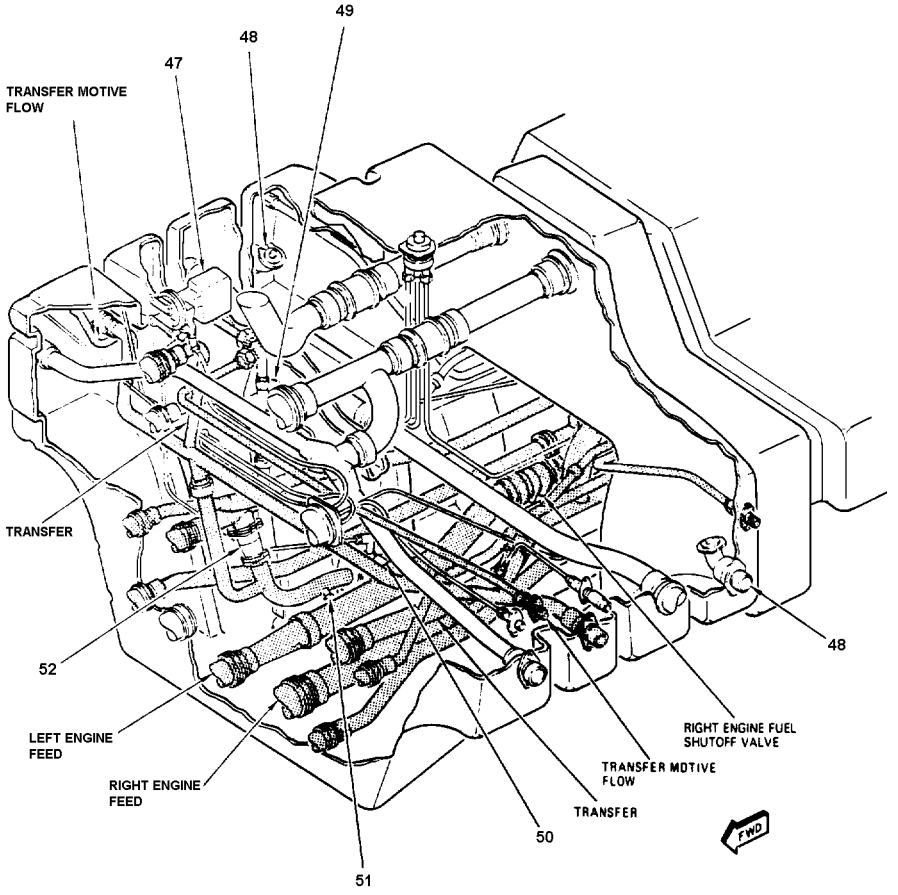


Figure 1. Internal Fuel Transfer System Component Locator (Sheet 19)

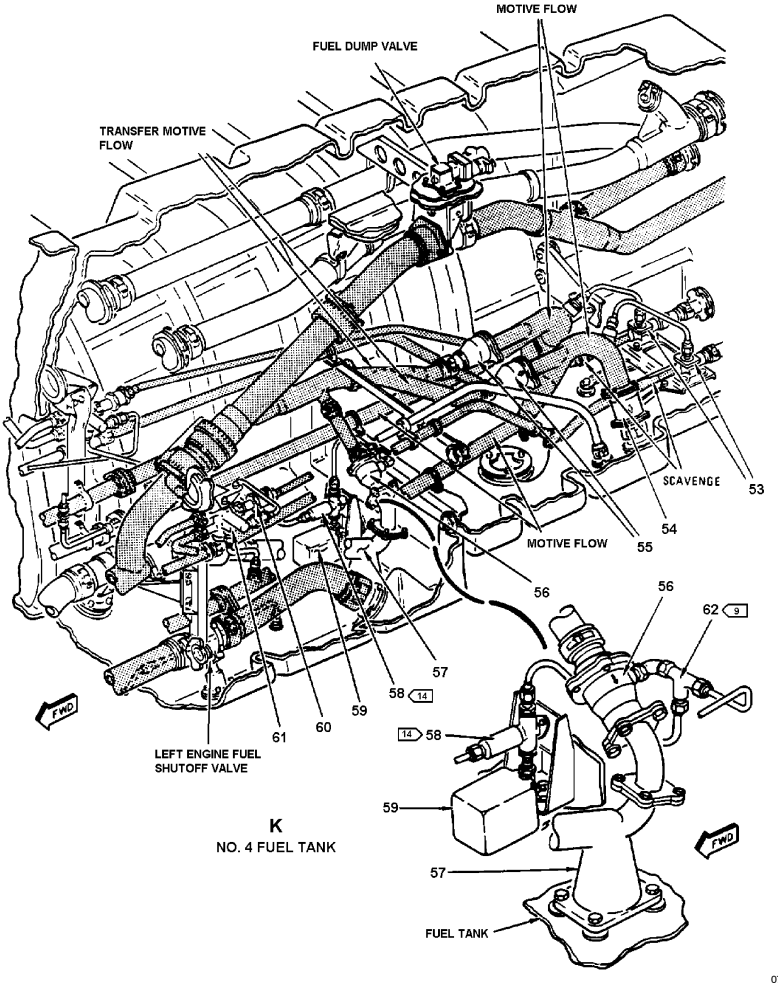


Figure 1. Internal Fuel Transfer System Component Locator (Sheet 20)

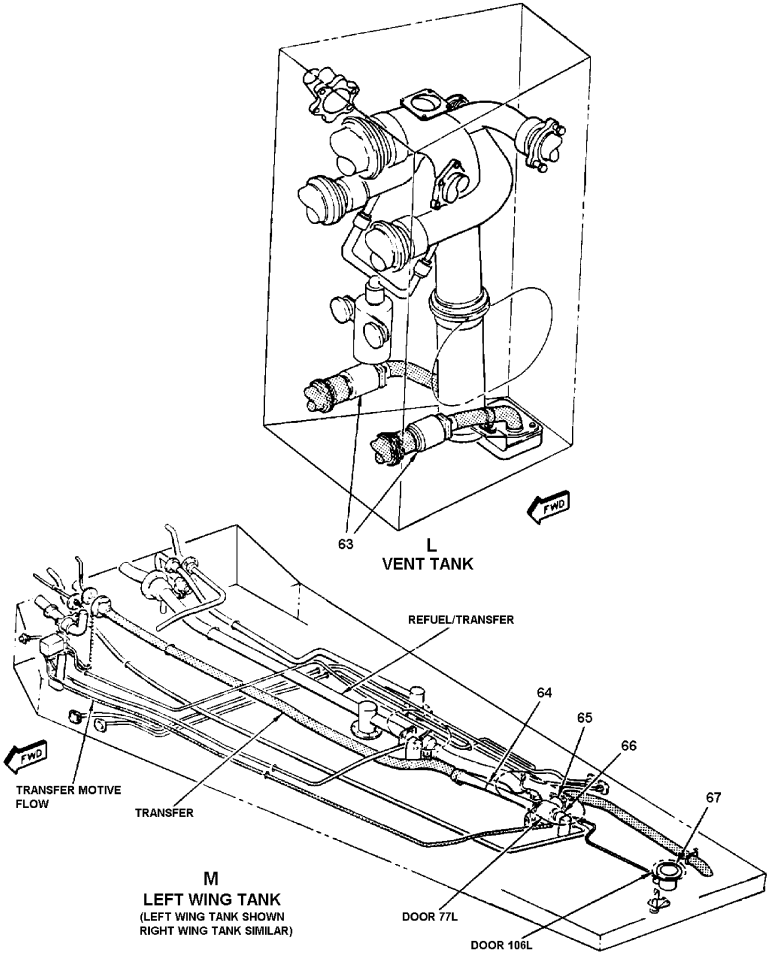


Figure 1. Internal Fuel Transfer System Component Locator (Sheet 21)

LEGEND

1. AIRCRAFT CONNECTOR LOCATIONS ARE SHOWN IN A1-F18A( )-WDM-000.

2 > 161520 AND UP.
3 > 161353 THRU 161519.
4 > 161353 THRU 161528.
5 > 161702 AND UP.
6 > 161353 THRU 161761 BEFORE F18 AFC 018.
7 > 161924 AND UP.
8 > 161735 THRU 161761.
9 > 161353 THRU 161965 BEFORE F18 AFC 053.
10 > 161353 THRU 161761 AFTER F18 AFC 39 AND 53 BEFORE 48 AND 161924 THRU 161987 BEFORE F18 AFC 48.
11 > 161353 THRU 161519 AFTER F18 AFC 39 AND 53 BEFORE 48 AND 161520 THRU 161987 BEFORE F18 AFC 48.
12 > 162394 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39, 53 AND 48 AND 161924 THRU 161987 AFTER F18 AFC 48.
13 > 161924 AND UP, ALSO 161353 THRU 161761 AFTER F18 AFC 018.
14 > 161924 AND UP, ALSO 161353 THRU 161761 AFTER F18 AFC 053.
15 > 161520 THRU 161761 BEFORE F18 AFC 53.
16 > 161353 THRU 161761 BEFORE F18 AFC 41.
17 > 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 41.
18 > 161353 THRU 161761 BEFORE F18 AFC 39.
19 > 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39.
20 > 161520 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39.
21 > 162394 AND UP; ALSO 161353 THRU 161519 AFTER F18 AFC 39, 53 AND 48 AND 161520 THRU 161987 AFTER F18 AFC 48.

07010122

Figure 1. Internal Fuel Transfer System Component Locator (Sheet 22)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

INTERNAL FUEL TRANSFER SYSTEM

EFFECTIVITY: 161353 THRU 161519 BEFORE F/A-18 AFC 21, 39, AND 53

Reference Material

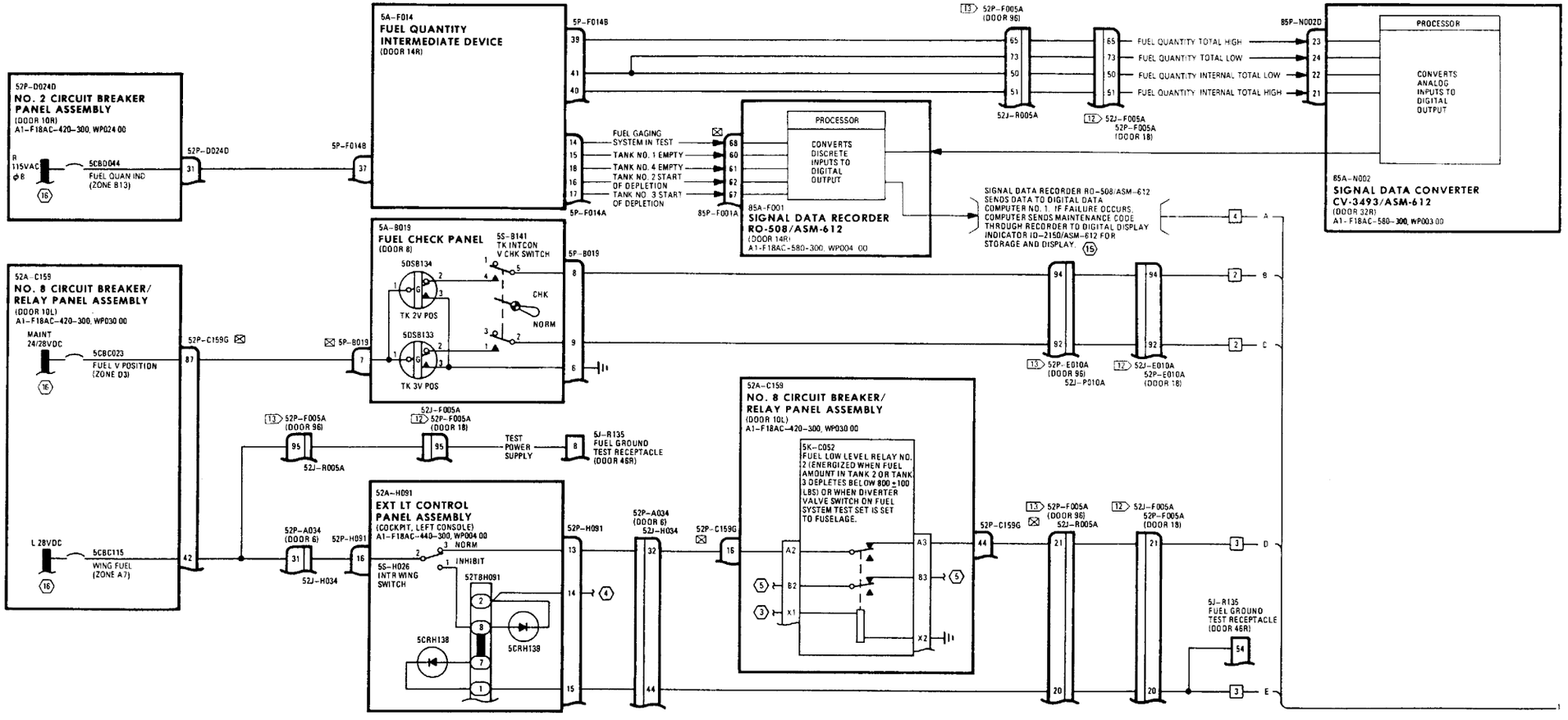
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Alphabetical Index

Subject	Page No.
Internal Fuel Transfer System Schematic, 161353 THRU 161519 BEFORE F18 AFC 21, 39 AND 53, Figure 1	3

Record of Applicable Technical Directives

None



07020101

Figure 1. Internal Fuel Transfer System Schematic, 161353 THRU 161519 BEFORE F18 AFC 21, 39 AND 53 (Sheet 1)

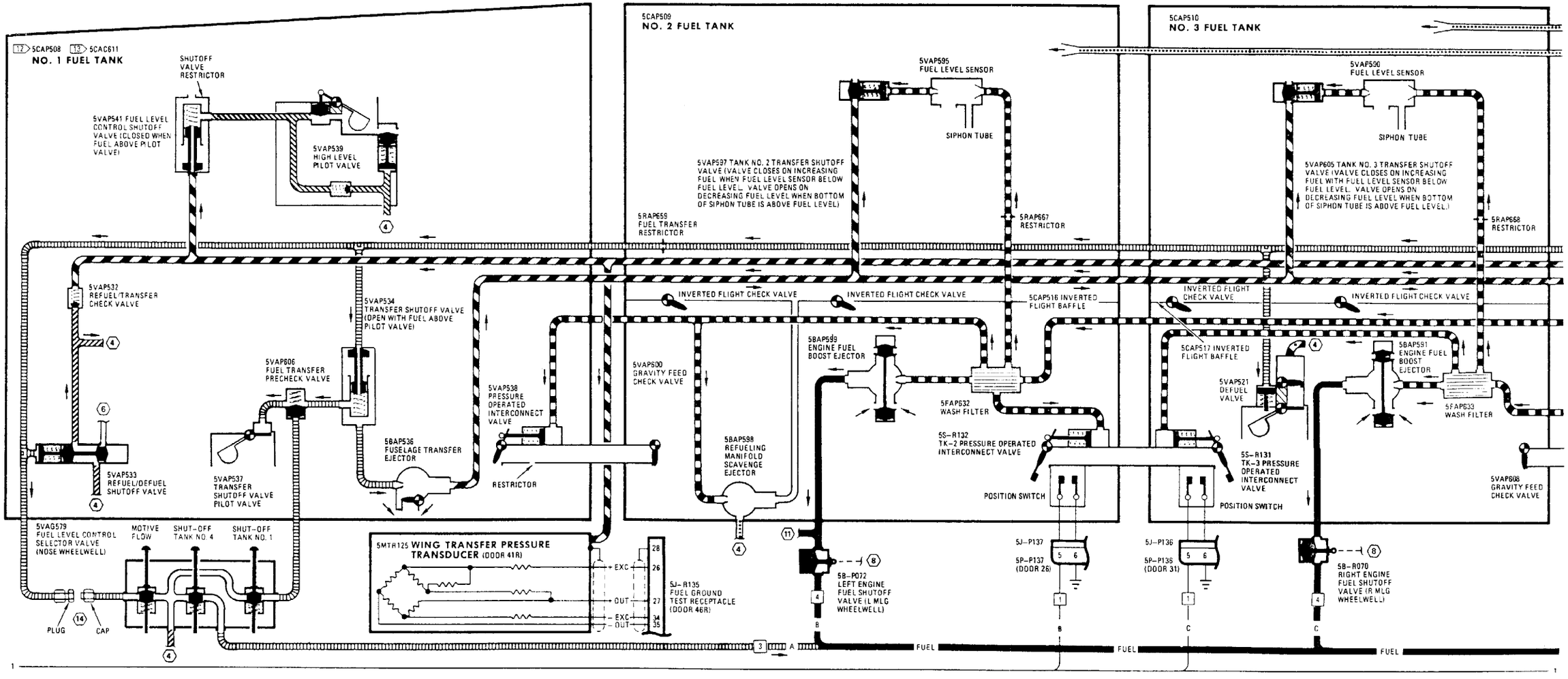
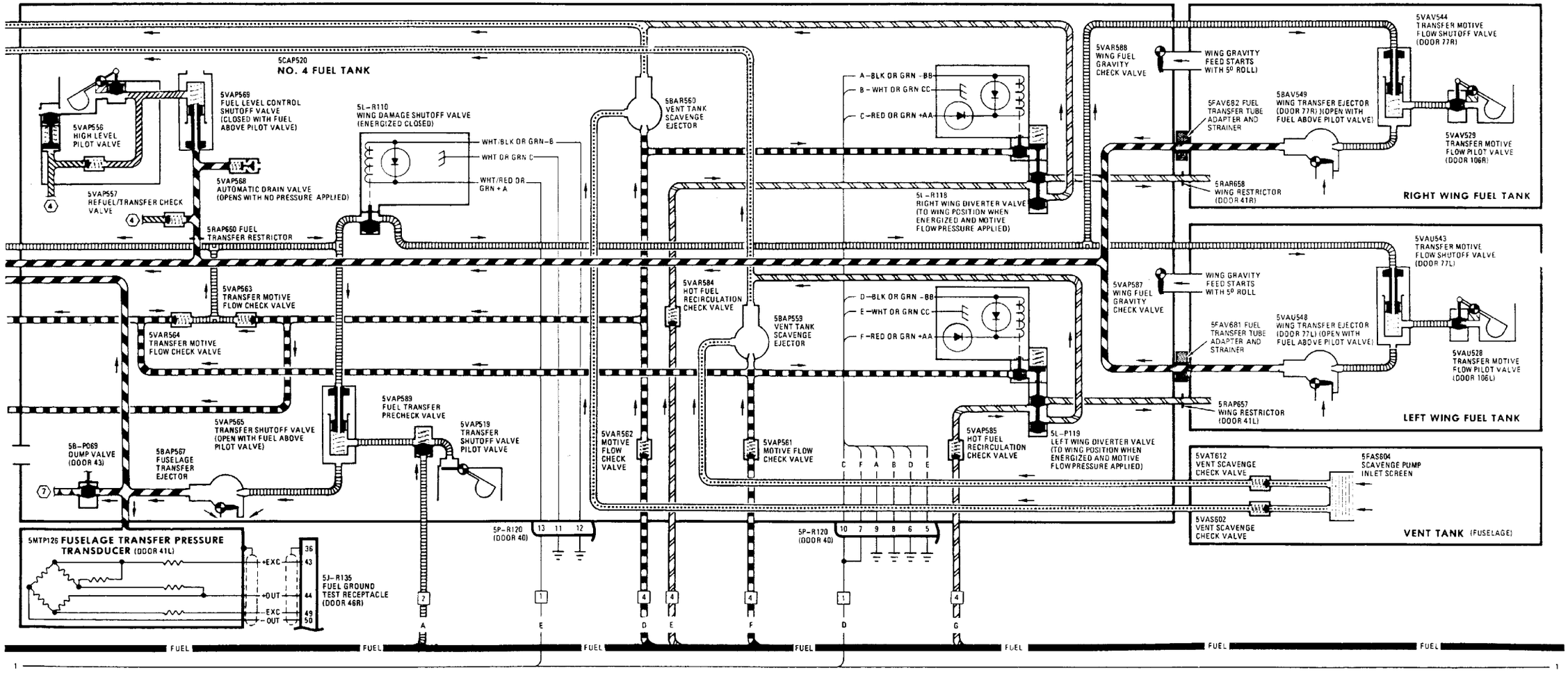
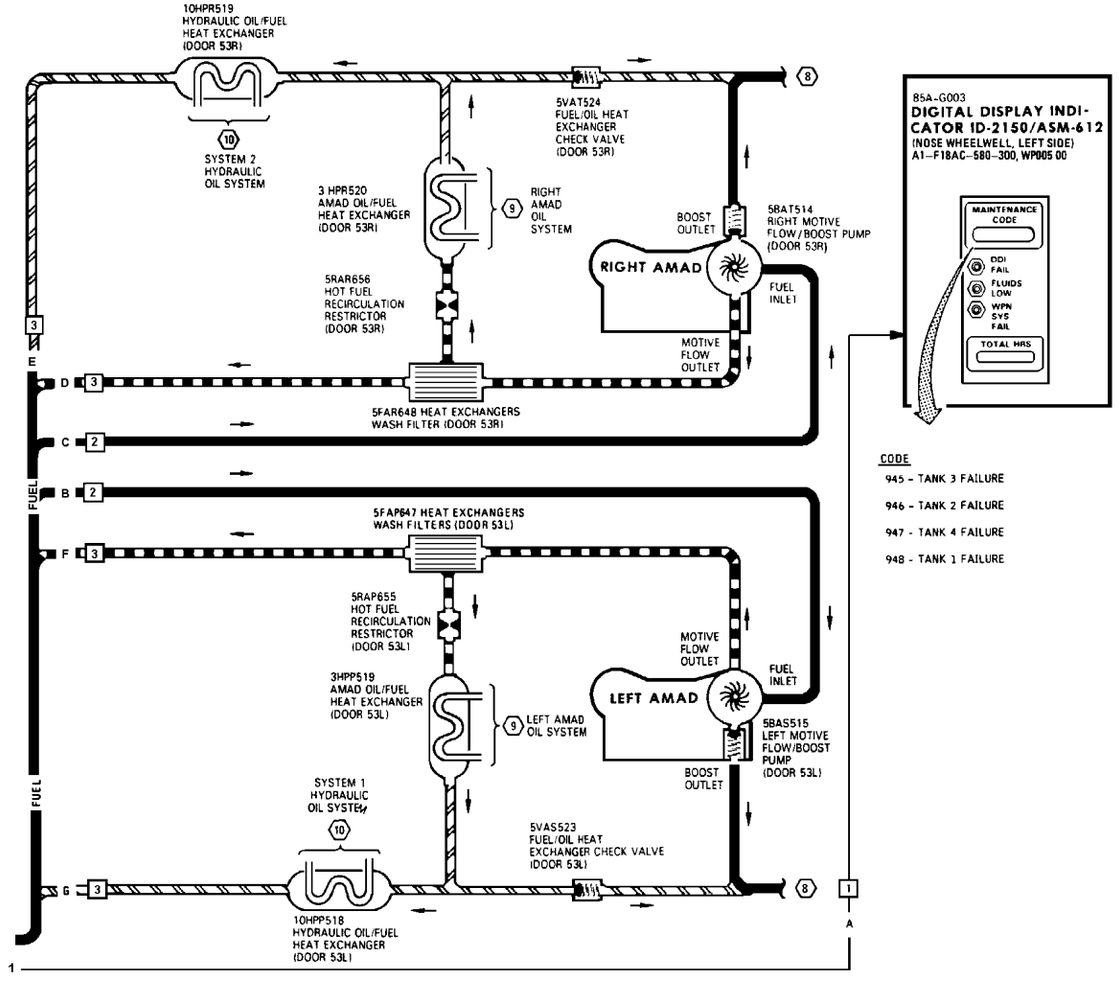


Figure 1. Internal Fuel Transfer System Schematic, 161353 THRU 161519 BEFORE F18 AFC 21, 39 AND 53 (Sheet 2)



07020103

Figure 1. Internal Fuel Transfer System Schematic, 161353 THRU 161519 BEFORE F18 AFC 21, 39 AND 53 (Sheet 3)



LEGEND

- FUEL — HIGHWAY FOR MULTIPLE FUEL PATTERNS
- TRANSFER
- SCAVENGE
- TRANSFER MOTIVE FLOW
- MOTIVE FLOW
- FUEL DUMP
- REFUEL
- ENGINE FUEL SUPPLY
- HOT FUEL RECIRCULATION
- VENT

1. CONTINUITY TESTS:

A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.

B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.

C. DO NOT TEST LOW LEVEL DEVICES (SWITCH/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCH/REALY CONTACTS MAY USE THE RX1 SCALE.

D. WHEN TESTING CONTINUITY, TEST FOR:

(1) SHORTS TO GROUND.
(2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
(3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
(4) SHIELD CONTINUITY.

E. WHEN ELECTRICAL POWER IS OFF, 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS ON CONNECTORS (IDENTIFIED BY ⊠) MAKE SURE MULTIMETER LEADS/JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY.

2. NONSTANDARD SYMBOLS.

⊕ IDENTIFIES RELAY USED TO SWITCH TO LOW LEVEL CURRENT. SEE NOTE 1.

CHECK LIGHT

⊠ IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR. SEE NOTE 1.

(3) FUEL LOW LEVEL WARNING SYSTEM SCHEMATIC, WP013 00.
(4) REFUEL/DEFUEL SYSTEM SCHEMATIC, WP004 00.
(5) EXTERNAL FUEL SYSTEM SCHEMATIC, WP006 00.
(6) FUEL PRESSURIZATION AND VENT SYSTEM SCHEMATIC, WP011 00.
(7) FUEL DUMP SYSTEM SCHEMATIC, WP009 00.
(8) ENGINE FUEL SUPPLY SYSTEM SCHEMATIC, WP008 00.
(9) AMAD SYSTEM SCHEMATIC, A1-F18AC-240-500, WP007 00.
(10) HYDRAULIC SYSTEM SCHEMATIC, A1-F18AC-450-500, WP003 00.
(11) APU SYSTEM SCHEMATIC A1-F18AC-240-500, WP004 00
(12) F/A-18A
(13) F/A-18B
(14) MOTIVE FLOW LINE NORMALLY PLUGGED. MOTIVE FLOW LINE CONNECTED DURING INTERNAL TRANSFER TEST.
(15) INTERNAL FUEL TRANSFER SYSTEM MAINTENANCE CODE SCHEMATIC, WP007 04.
(16) POWER DISTRIBUTION SCHEMATIC, A1-F18AC-420-500, WP005 00.

07020104

Figure 1. Internal Fuel Transfer System Schematic, 161353 THRU 161519 BEFORE F18 AFC 21, 39 AND 53 (Sheet 4)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

INTERNAL FUEL TRANSFER SYSTEM

EFFECTIVITY: 161520 THRU 161761

Reference Material

None

Alphabetical Index

Subject **Page No.**

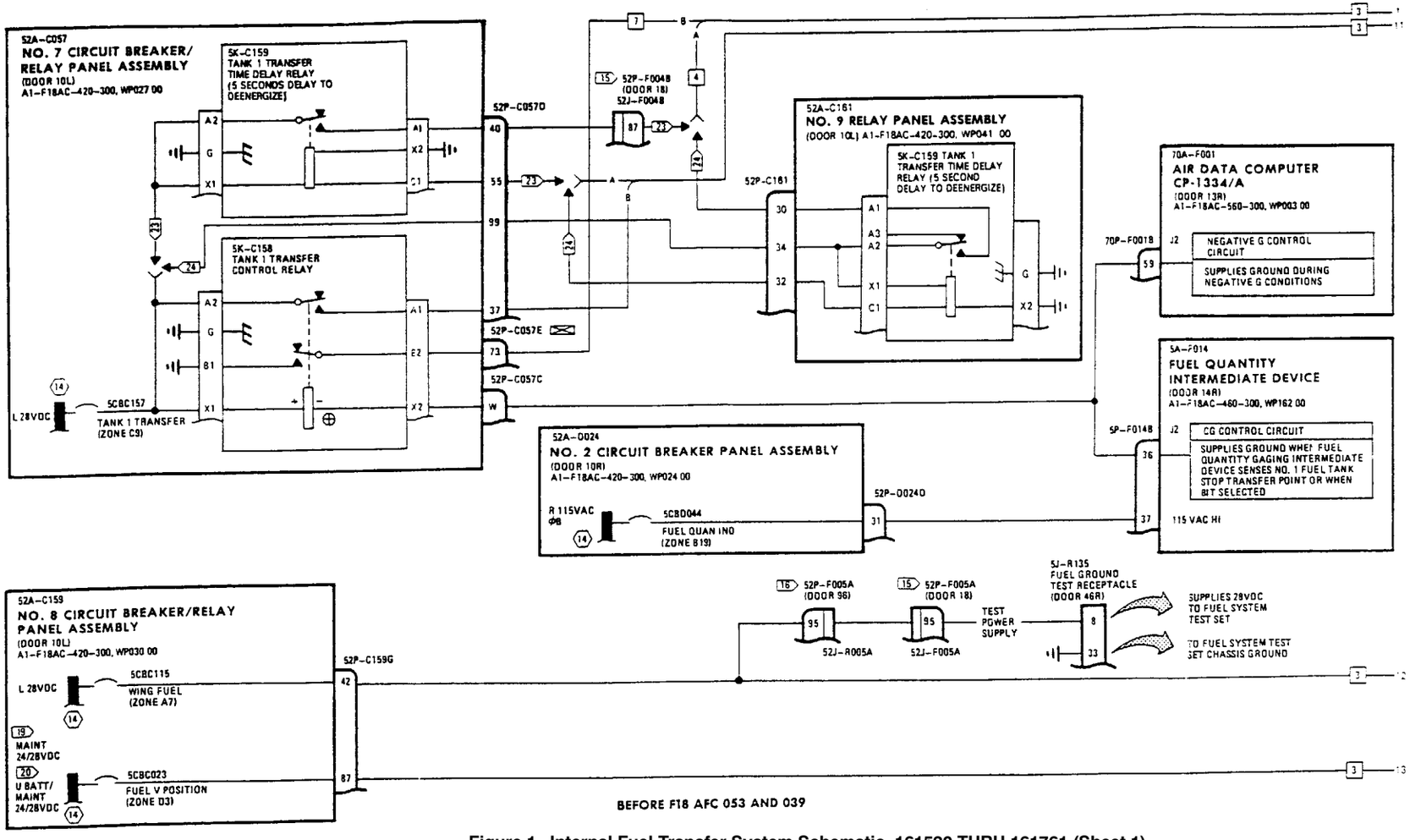
Internal Fuel Transfer System Schematic, 161520 THRU 161761, Figure 1 3

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A 18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutdown Valve, and Raised Inverted Baffle (ECP MDA-F/A-18-00055)	1 Aug 86	-
F/A-18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/ Sealing of Raised Baffle in Tank 2 and 3 (ECP MDA-F/A-18-00077)	1 Aug 86	-
F/A-18 AFC 48	-	Automatic AC Bus Isolation, Incorporation of (ECP MDA-F/A-18-00121)	1 Aug 86	-

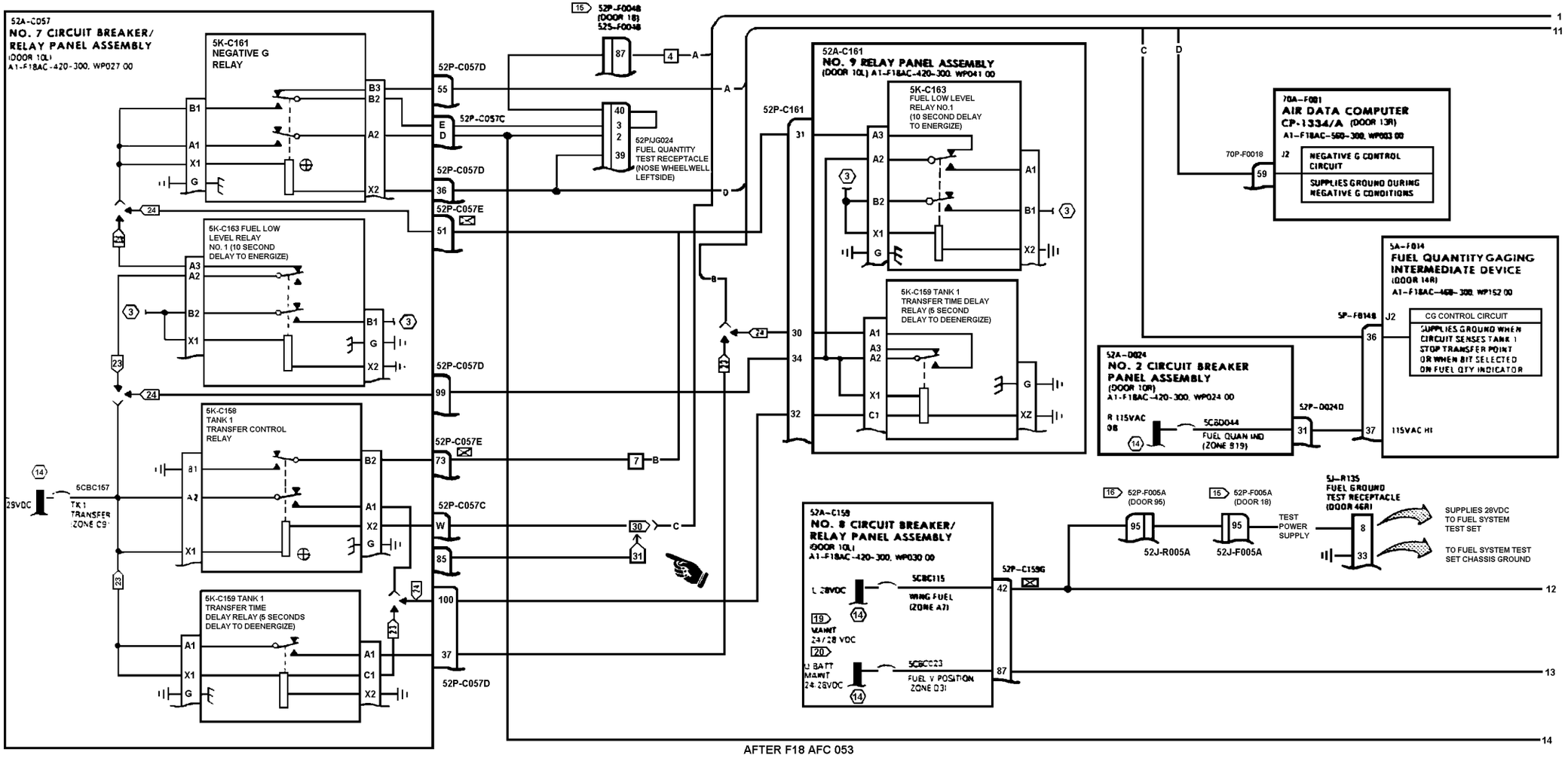
Record of Applicable Technical Directives (Continued)

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA-F/A-18-00072C1)	1 Nov 86	-
F/A-18 AFC 74	-	Additional Weapons Capability, Installation of (ECP MDA-F/A-18-00090C1	23 Aug 91	-



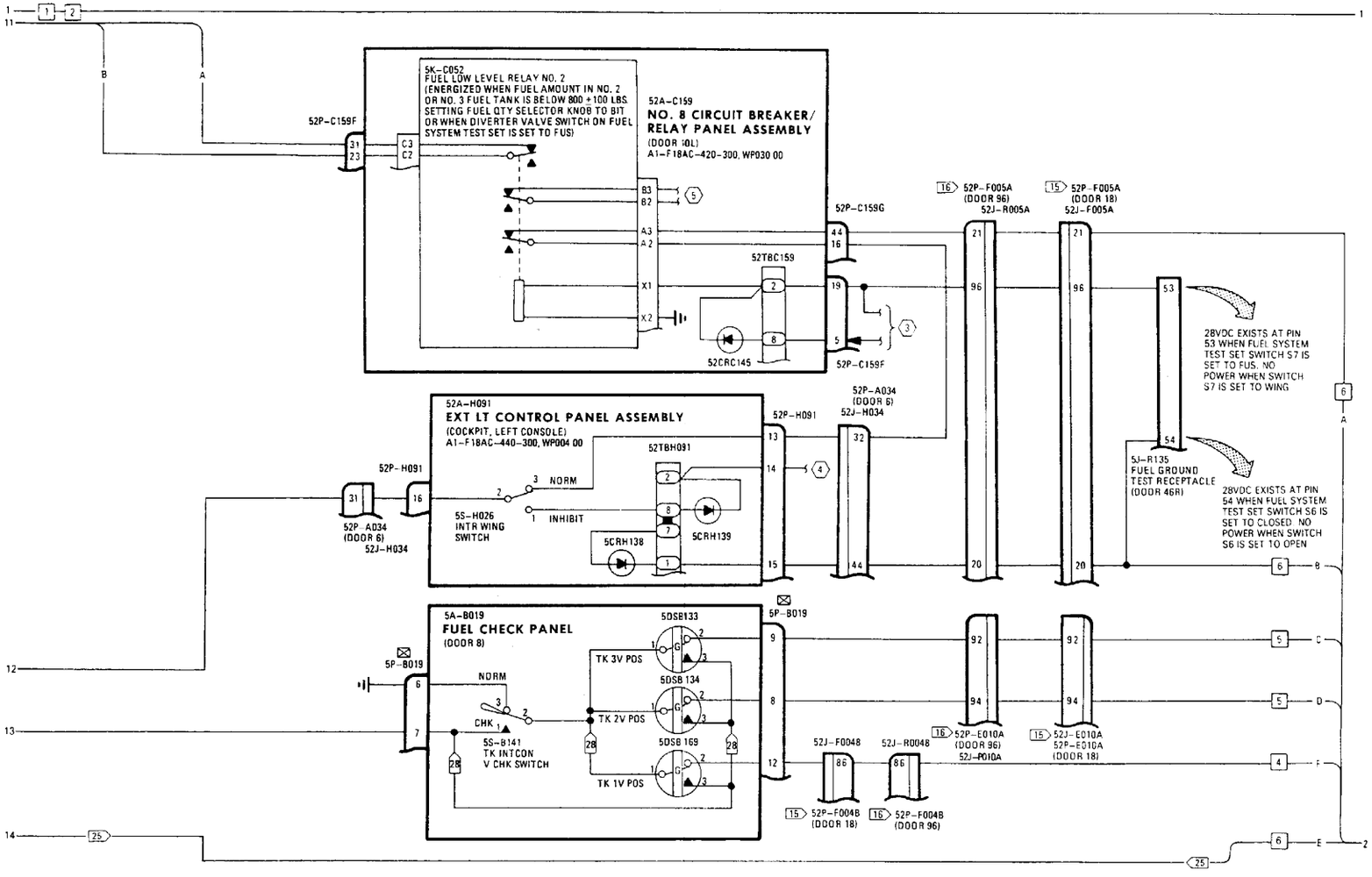
07030101

Figure 1. Internal Fuel Transfer System Schematic, 161520 THRU 161761 (Sheet 1)



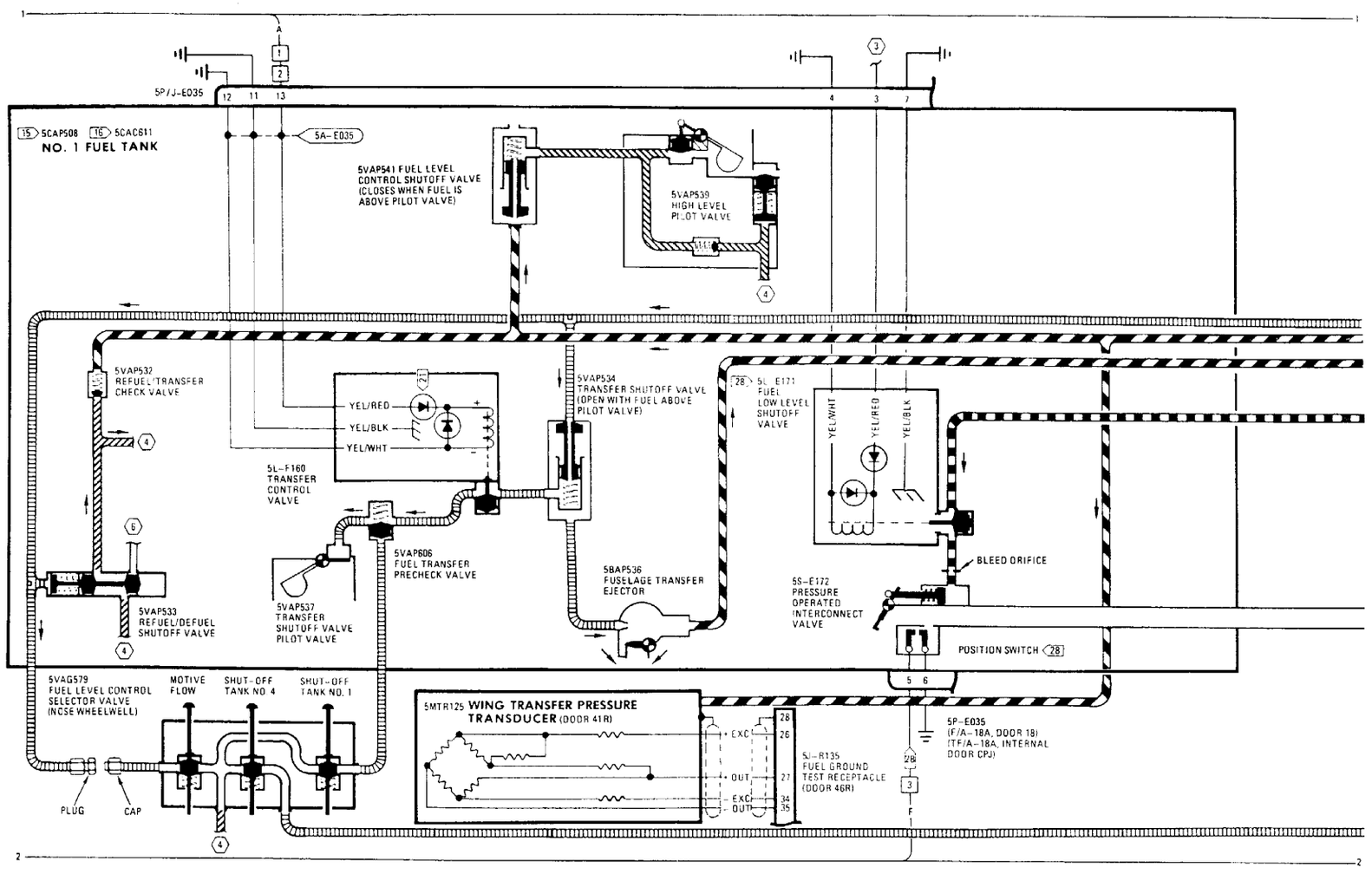
07030102

Figure 1. Internal Fuel Transfer System Schematic, 161520 THRU 161761 (Sheet 2)



07030103

Figure 1. Internal Fuel Transfer System Schematic, 161520 THRU 161761 (Sheet 3)



07030104

Figure 1. Internal Fuel Transfer System Schematic, 161520 THRU 161761 (Sheet 4)

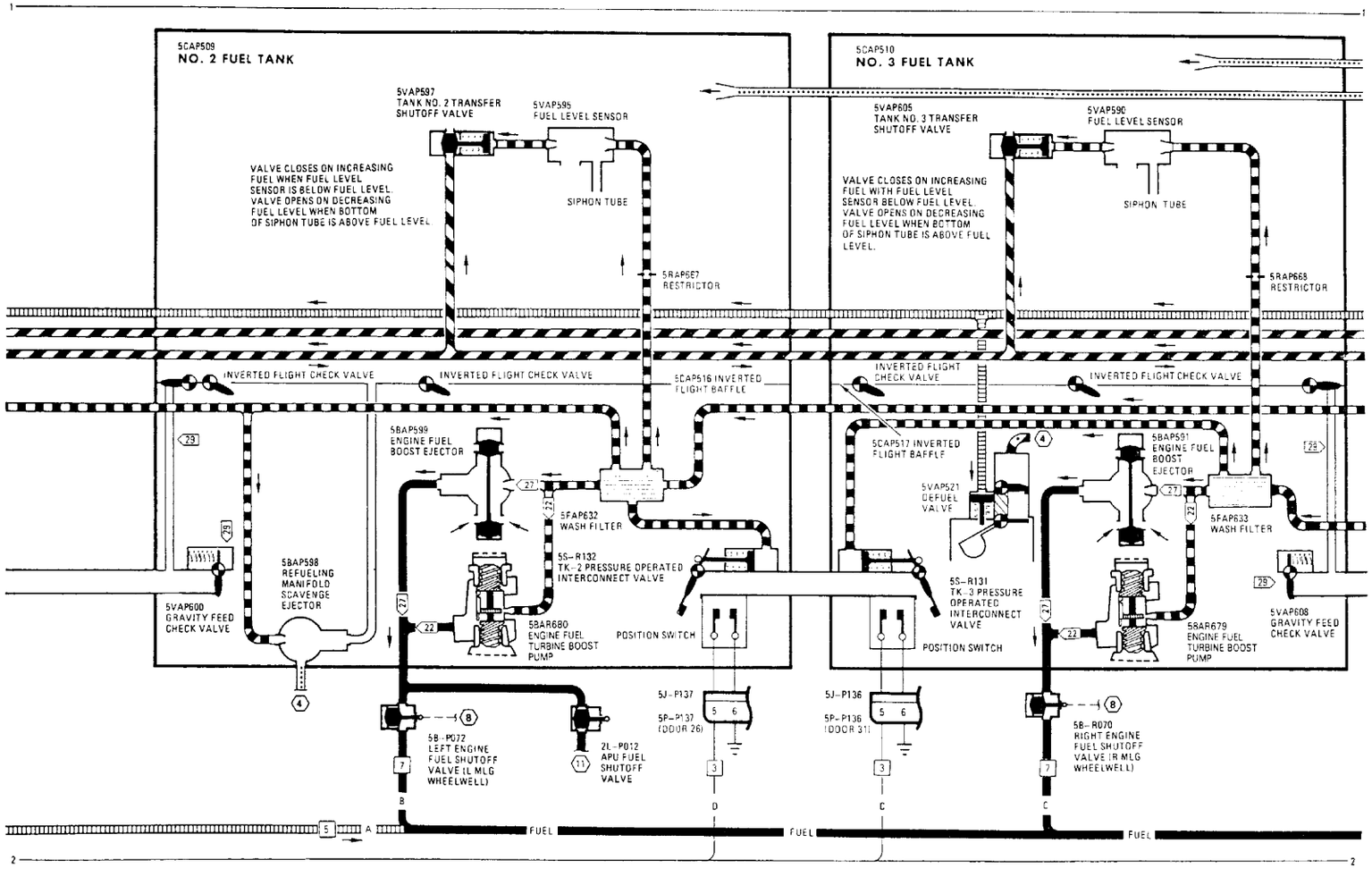


Figure 1. Internal Fuel Transfer System Schematic, 161520 THRU 161761 (Sheet 5)

07030105

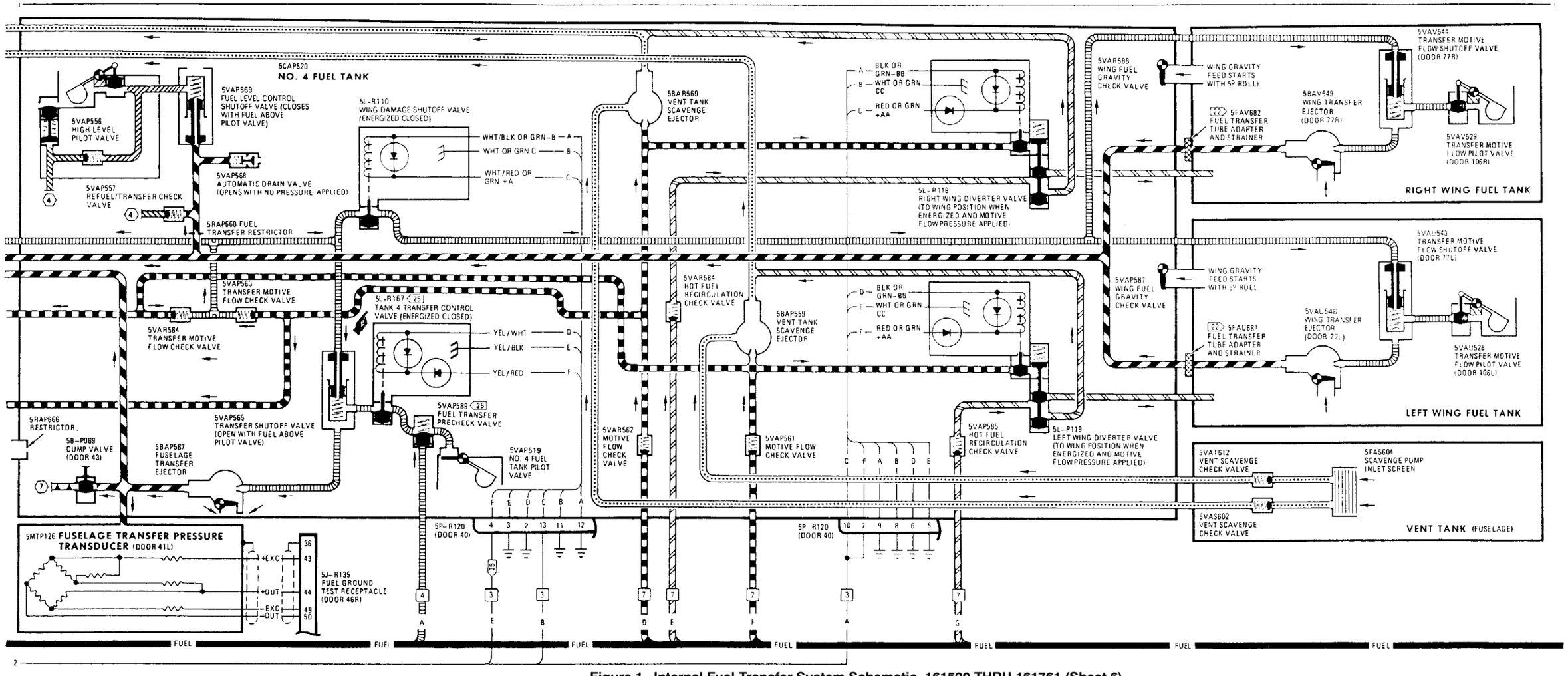
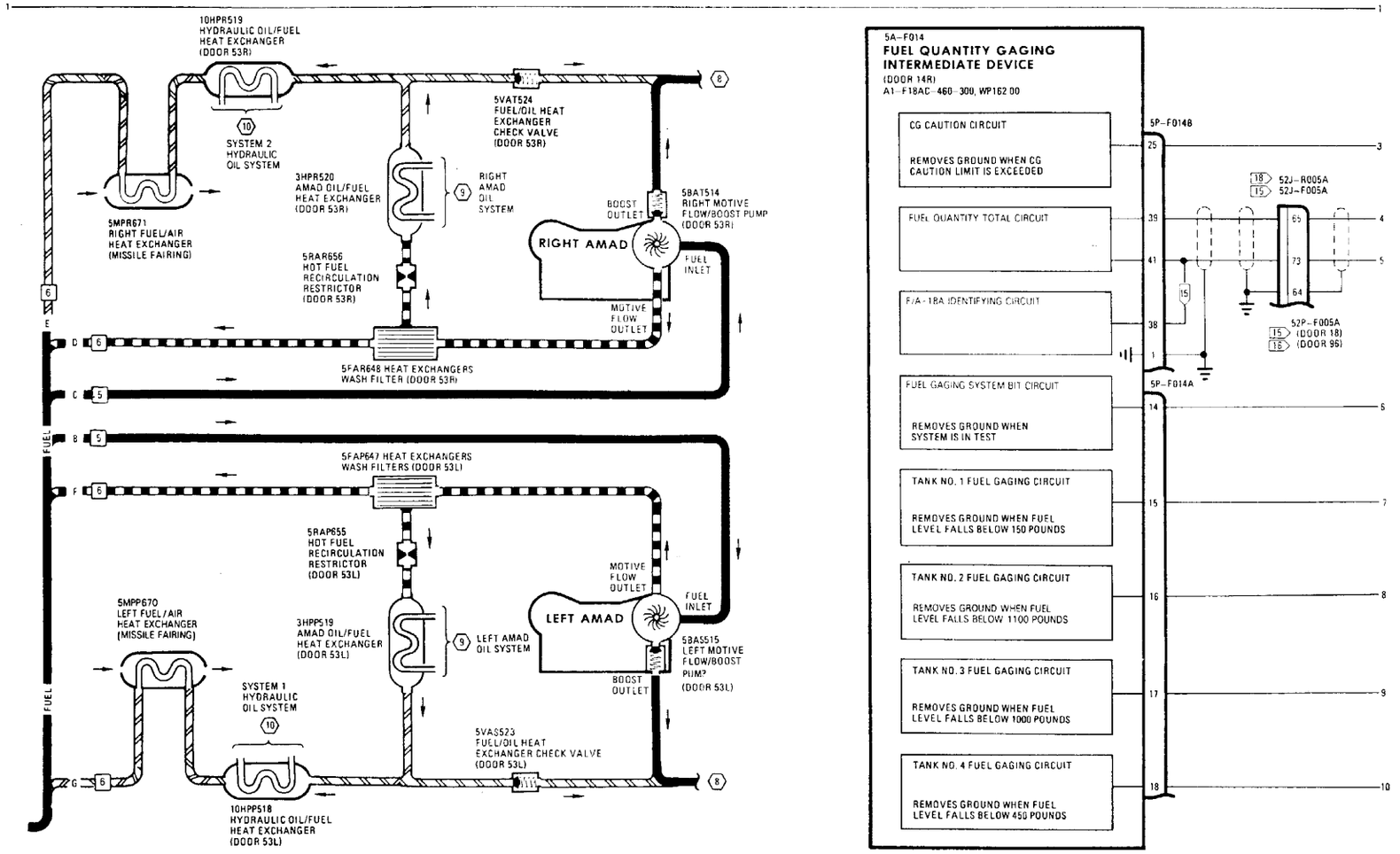


Figure 1. Internal Fuel Transfer System Schematic, 161520 THRU 161761 (Sheet 6)



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Figure 1. Internal Fuel Transfer System Schematic, 161520 THRU 161761 (Sheet 7)

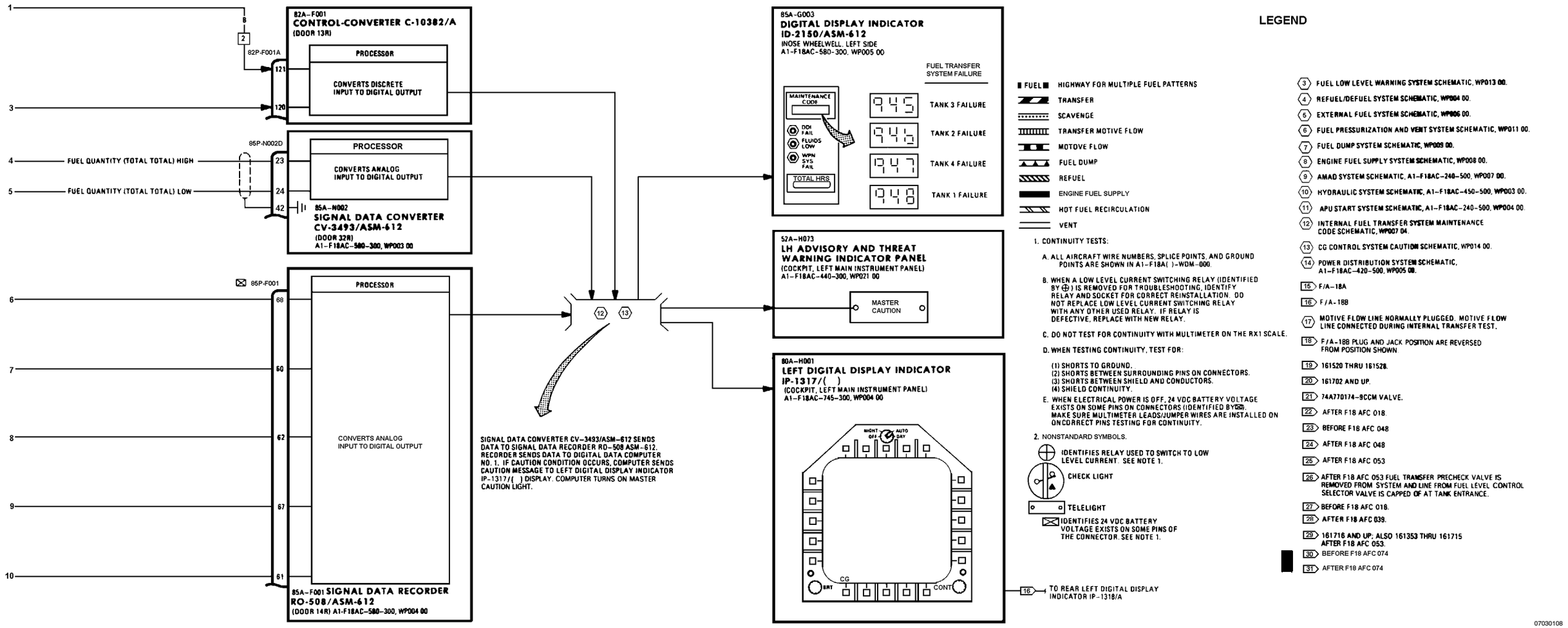


Figure 1. Internal Fuel Transfer System Schematic, 161520 Thru 161761 (Sheet 8)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

INTERNAL FUEL TRANSFER SYSTEM

MAINTENANCE CODE SCHEMATIC

Reference Material

None

Alphabetical Index

Subject **Page No.**

Internal Fuel Transfer System Maintenance Code Schematic, Figure 1 3

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA-F18-00072C1)	1 Nov 86	-
F18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve, and Raised Inverted Baffle (ECP MDA-F18-00055)	1 Nov 86	-
F18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/ Sealing of Raised Baffle in Tank 2 and 3 (ECP MDA-F18-00077)	1 Nov 86	-
F18 AFC 21	-	Addition of Fuel/Air Heat Exchanger (ECP MDA-F18-00033)	1 Nov 86	-

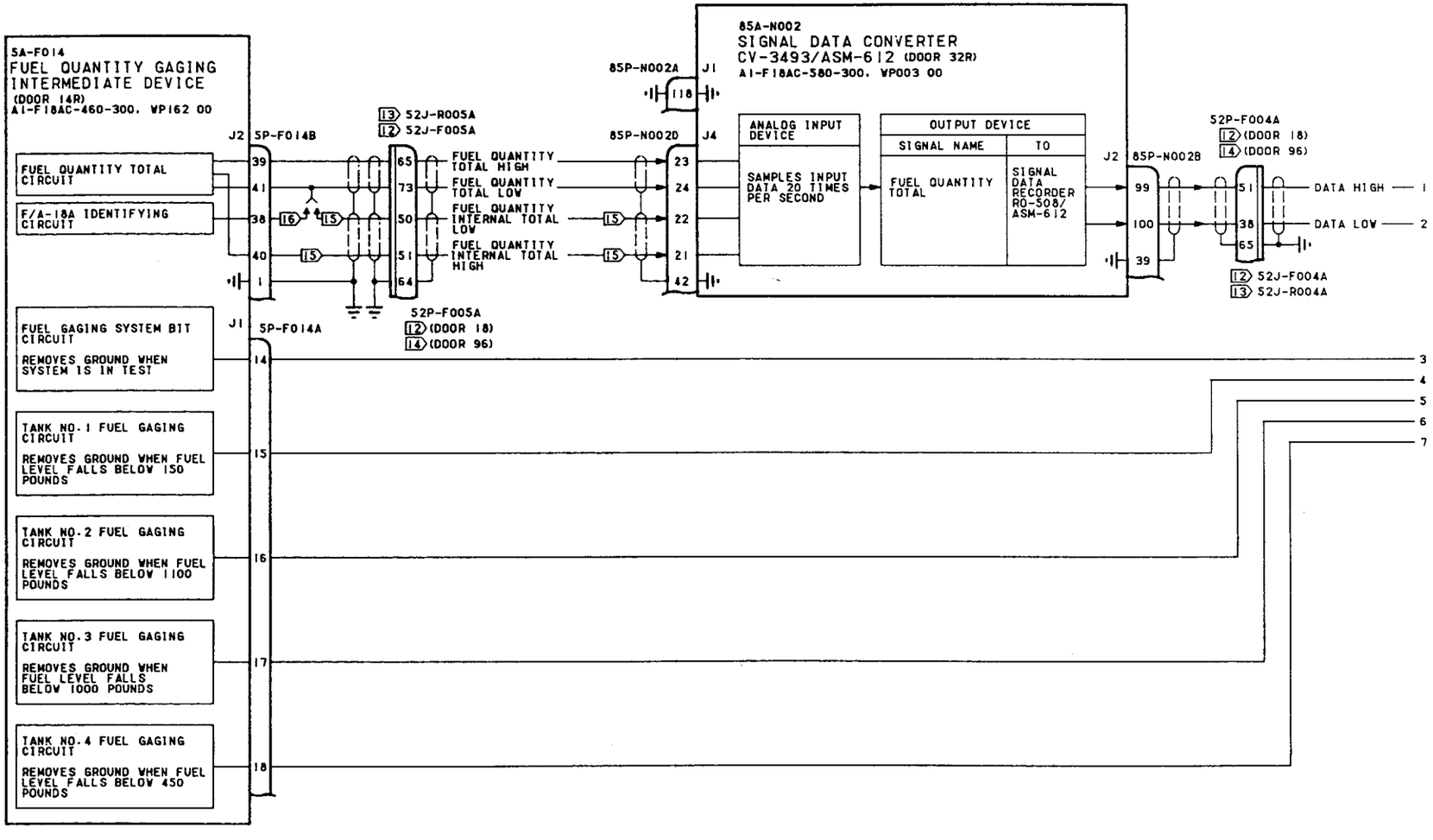


Figure 1. Internal Fuel Transfer System Maintenance Code Schematic (Sheet 1)

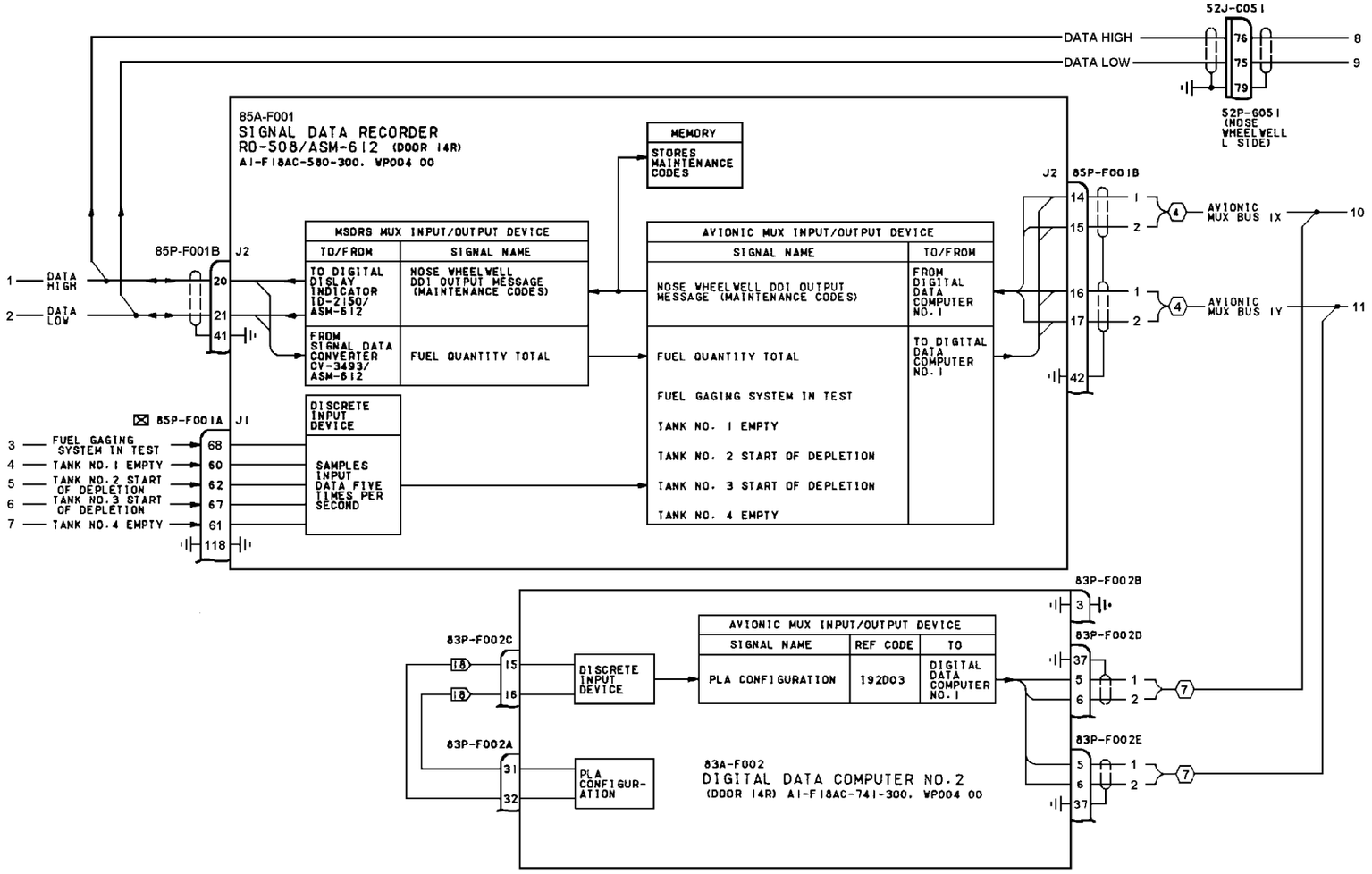


Figure 1. Internal Fuel Transfer System Maintenance Code Schematic (Sheet 2)

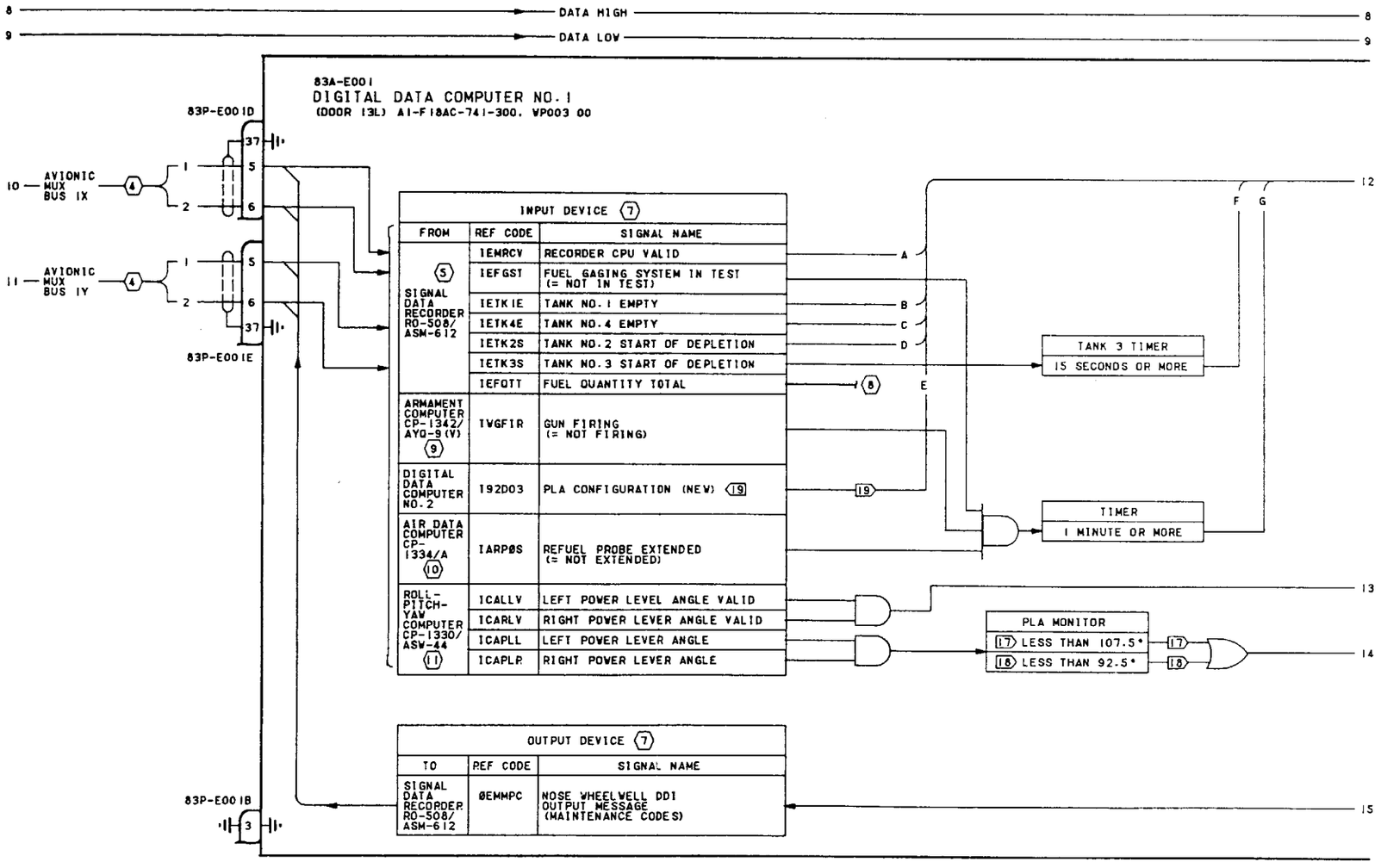
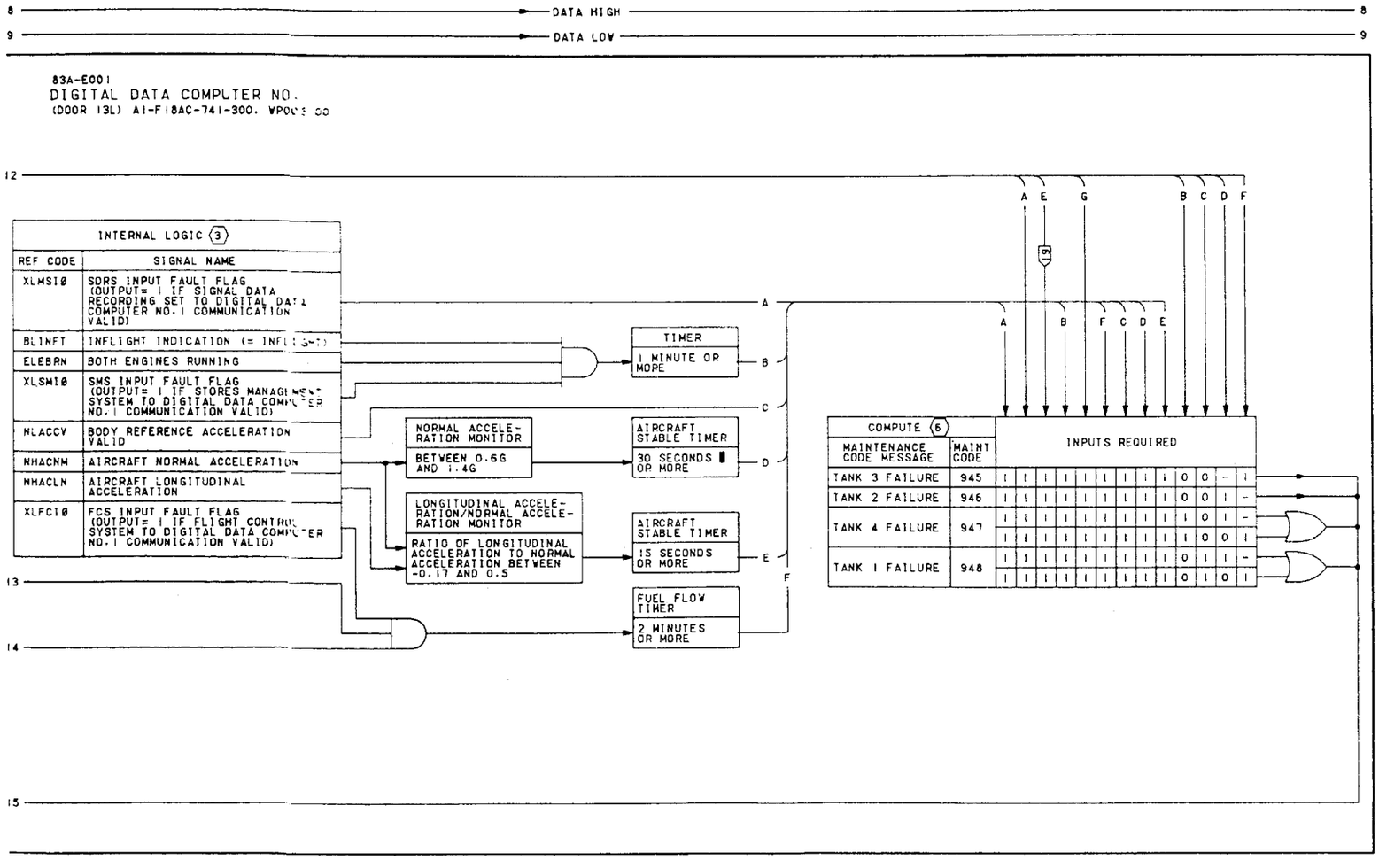
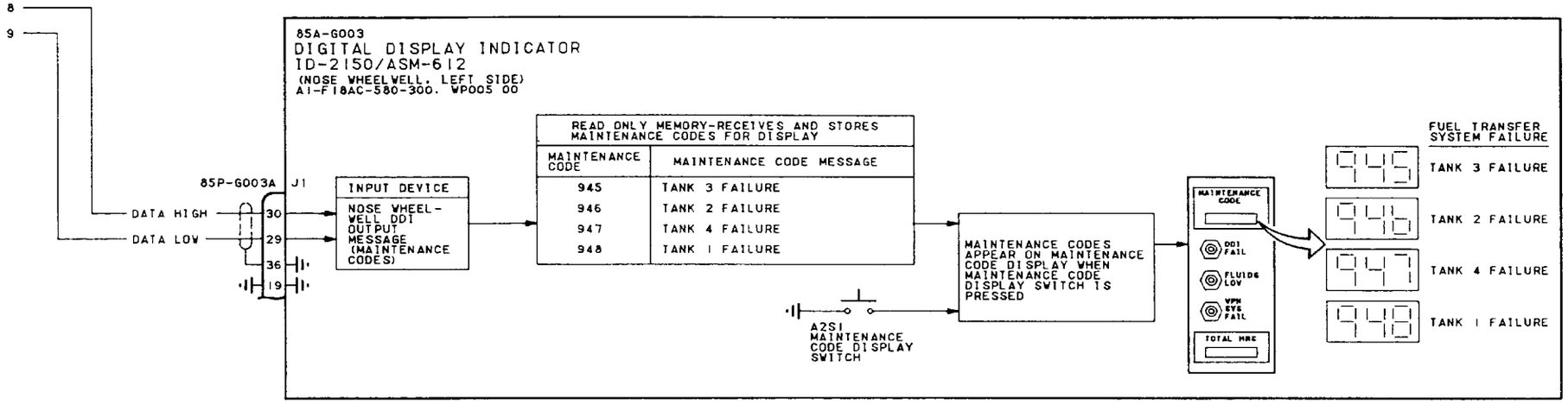


Figure 1. Internal Fuel Transfer System Maintenance Code Schematic (Sheet 3)



07040104

Figure 1. Internal Fuel Transfer System Maintenance Code Schematic (Sheet 4)



LEGEND

1. CONTINUITY TESTS:

   A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.

   B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLE-SHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.

   C. DO NOT TEST LOW LEVEL DEVICES (SWITCH/RELAY CONTACTS). FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE, PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCH/RELAY CONTACTS MAY USE RX1 SCALE.

   D. WHEN TESTING CONTINUITY, TEST FOR:

      (1) SHORTS TO GROUND.

      (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.

      (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.

      (4) SHIELD CONTINUITY.

   E. WHEN ELECTRICAL POWER IS OFF 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS ON CONNECTOR (IDENTIFIED BY ⊠). MAKE SURE MULTIMETER LEADS/JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHILE TESTING FOR CONTINUITY.

2. NONSTANDARD SYMBOLS:

   ⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1.

   ⊠ IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR. SEE NOTE 1.

(3) REF CODES USED FOR THESE COMPUTATIONS ARE MISSION COMPUTER MNEMONICS. TO LOCATE INTERNAL REF CODES IN A1-F18AC-OLD-000, USE THE LOGIC DIAGRAMS FOR THE INPUT/OUTPUT REF CODES.

(4) AVIONIC MUX CHANNEL 1 SCHEMATIC, A1-F18AC-741-500, WP004 00.

(5) MAINTENANCE STATUS DISPLAY AND RECORDING SYSTEM BUILT-IN TEST SCHEMATIC, A1-F18AC-580-500, WP012 00.

(6) EXPLANATION OF MATRIX:

   A. COMPUTE COLUMN LISTS THE SIGNAL OUTPUT.

   B. INPUTS REQUIRED ARE USED TO DEVELOP THE COMPUTED SIGNAL OUTPUT.

   C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RX1 SCALE.

   D. INTERPRET MATRIX TABLE AS INDICATED:

      (1) ONE (1) INDICATES THIS INPUT AS NAMED MUST BE THERE TO GET THE OUTPUT.

      (2) ZERO (0) INDICATES THIS INPUT AS NAMED MUST NOT BE THERE TO GET THE OUTPUT.

      (3) DASH (-) INDICATES THE OUTPUT DOES NOT DEPEND ON THIS INPUT.

(7) FOR LOGIC DIAGRAMS RELATING TO REF CODE, REFER TO A1-F18AC-OLD-000.

(8) FATIGUE STRAIN DATA SCHEMATIC, A1-F18AC-580-500, WP013 00.

(9) GUN SYSTEM SCHEMATIC, A1-F18AC-750-500, WP004 00.

(10) AIR DATA COMPUTER SCHEMATIC, A1-F18AC-560-500, WP004 00.

(11) APPROACH POWER COMPENSATION FUNCTIONAL SCHEMATIC, A1-F18AC-545-500, WP015 00.

(12) F/A-18A.

(13) F/A-18B PLUG AND JACK POSITION ARE REVERSED FROM POSITION SHOWN.

(14) F/A-18B.

(15) 161353 THRU 161519 BEFORE F18 AFC 39.

(16) F/A-18A 161520 AND UP.

(17) 161353 THRU 161528.

(18) 161702 AND UP.

(19) SOFTWARE CONFIG/IDENT NUMBER 210.

07040105

Figure 1. Internal Fuel Transfer System Maintenance Code Schematic (Sheet 5)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL SYSTEM TEST

MODE SCHEMATICS

EFFECTIVITY: 161520 THRU 161761 BEFORE F/A 18 AFC 53, 39, 18, 48 AND 21

Reference Material

None

Alphabetical Index

Subject	Page No.
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Fuel System Test Mode Schematic (Left AMAD or Engine Operating) - 161520 THRU 161761, Figure 2	7
Fuel System Test Mode Schematic (Left and Right Engine Operating) - 161520 THRU 161761, Figure 3	11

Record of Applicable Technical Directives

None

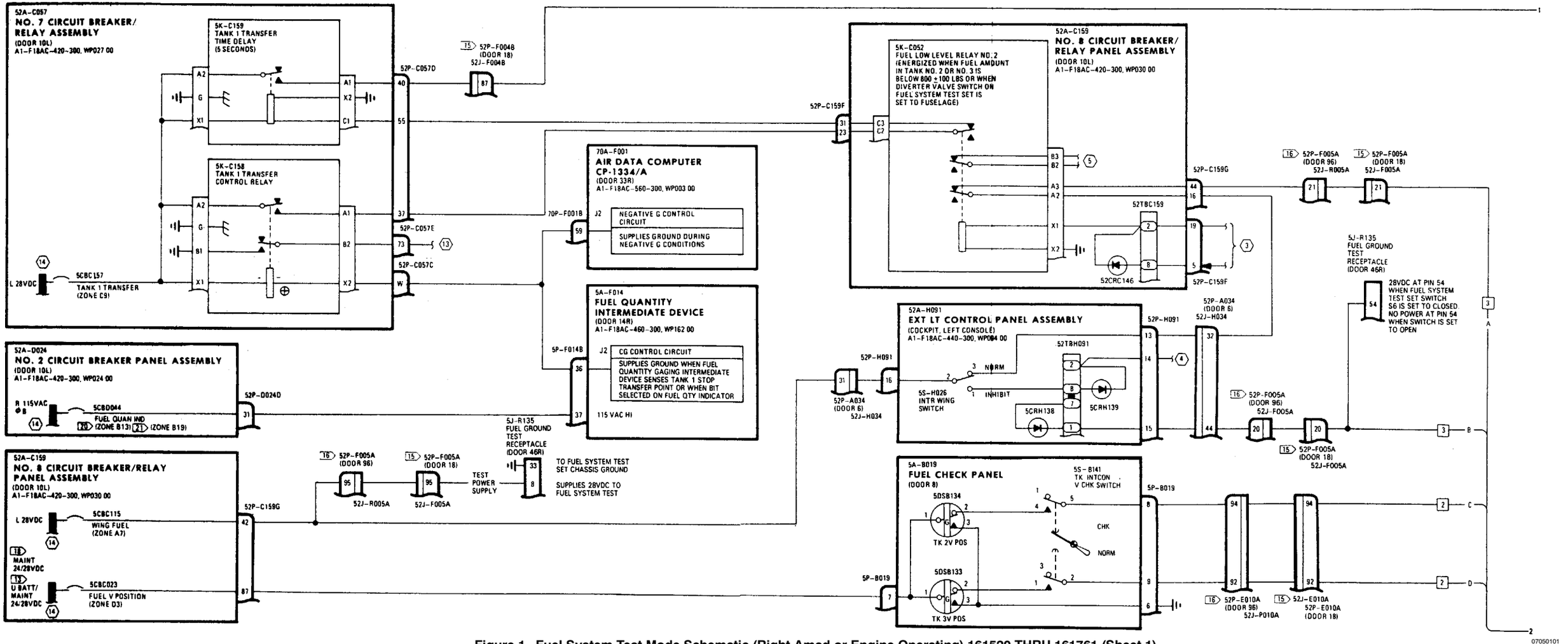


Figure 1. Fuel System Test Mode Schematic (Right Amad or Engine Operating) 161520 THRU 161761 (Sheet 1)

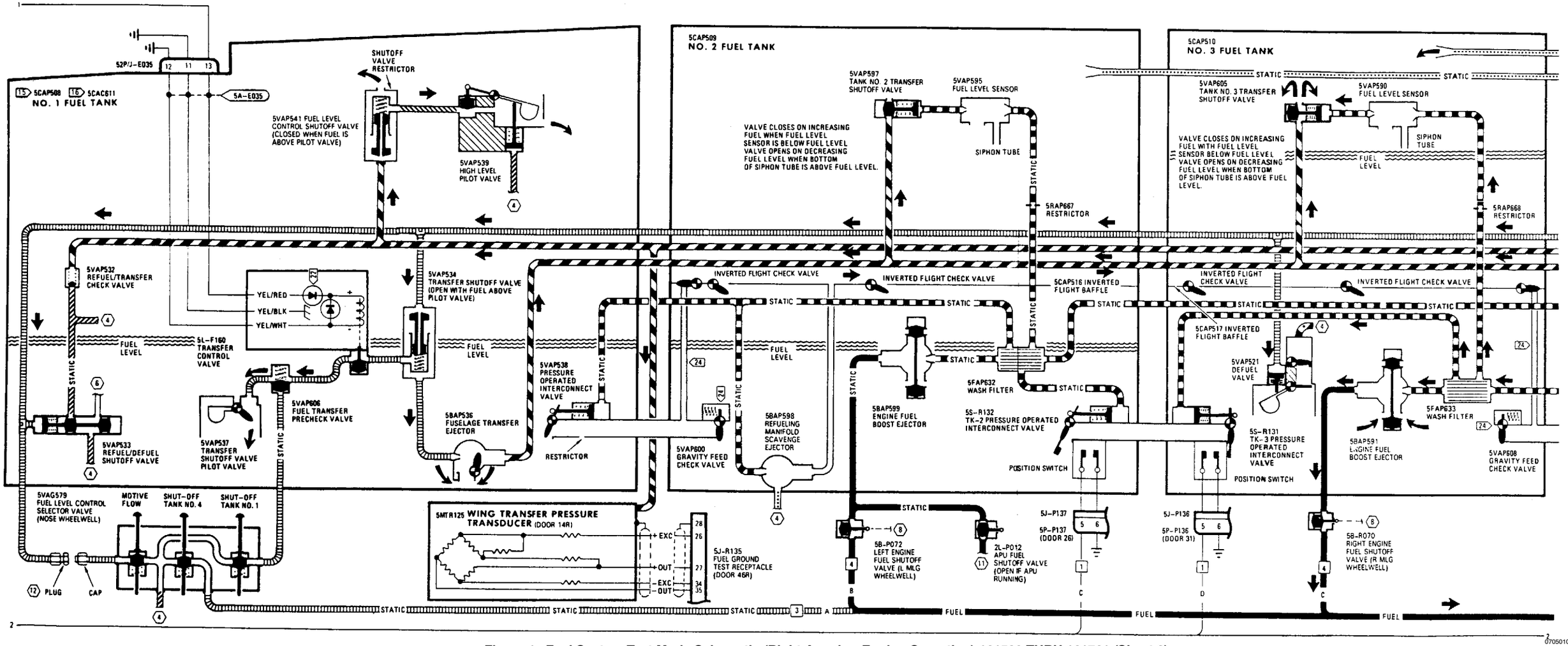


Figure 1. Fuel System Test Mode Schematic (Right Amad or Engine Operating) 161520 THRU 161761 (Sheet 2)

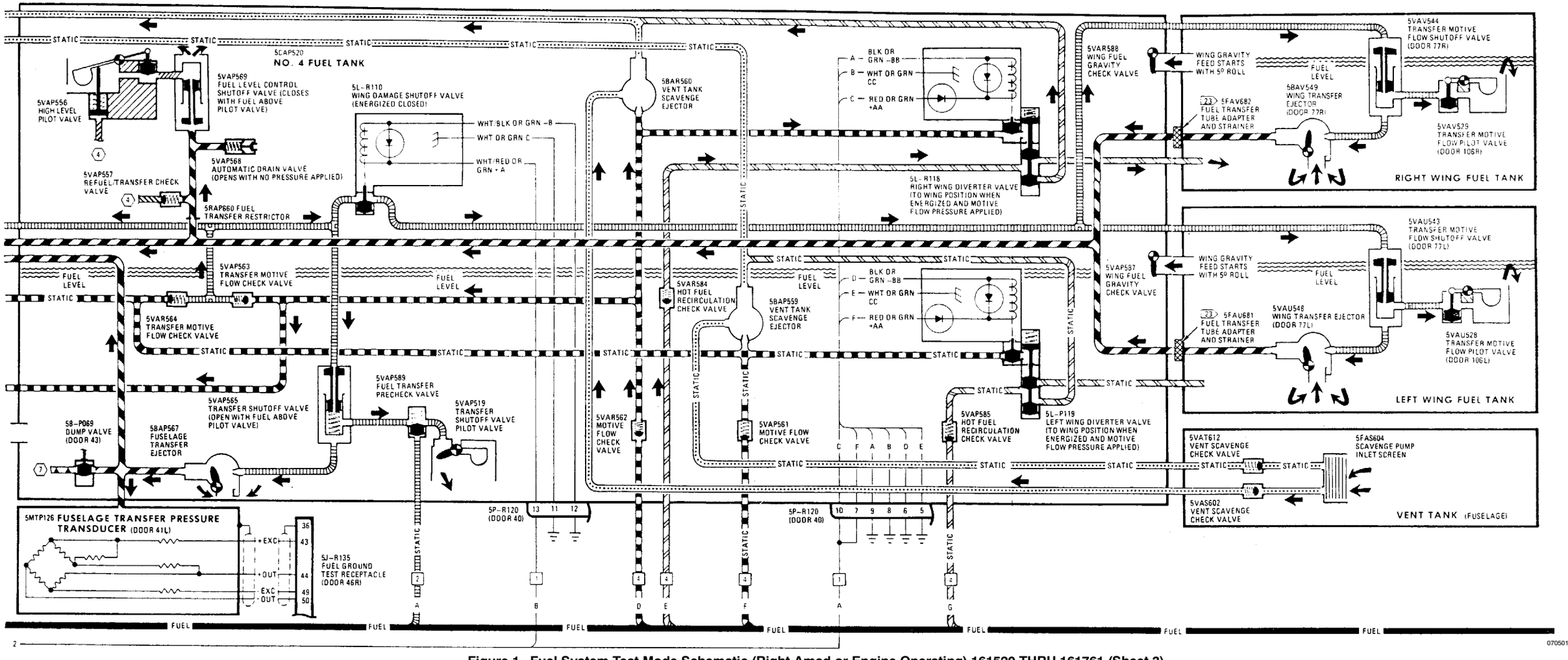
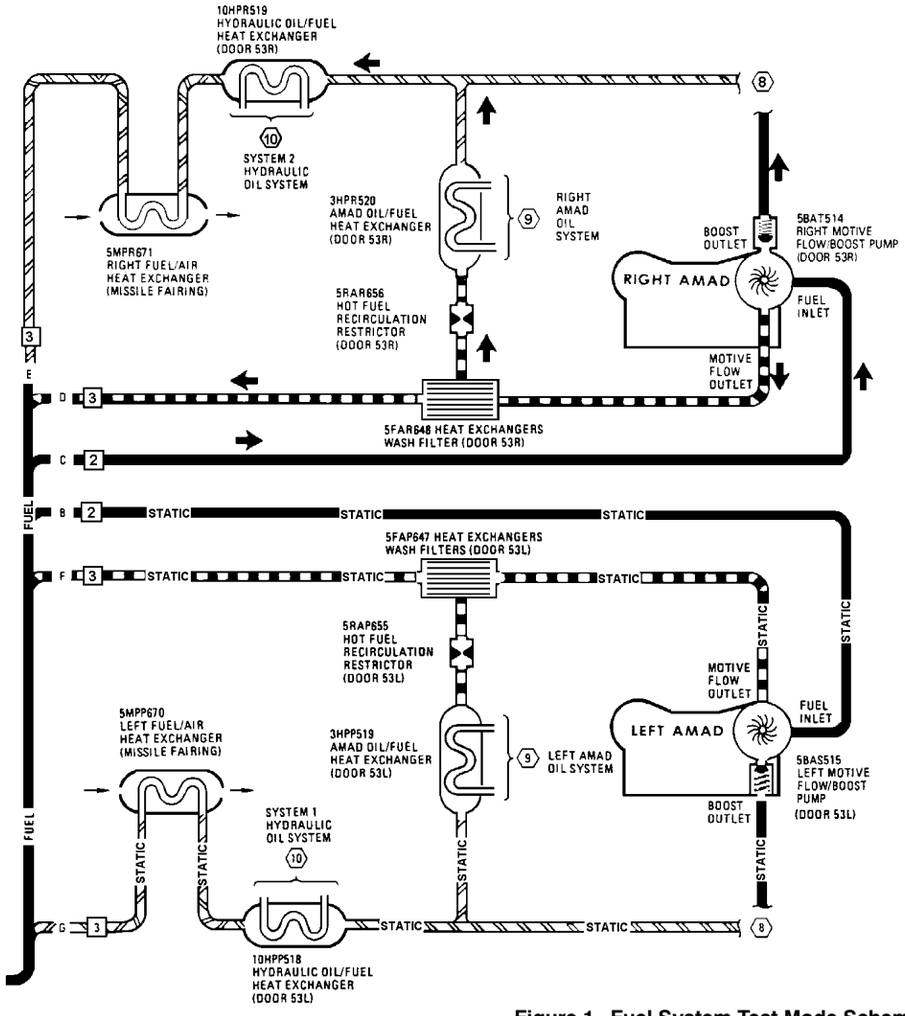


Figure 1. Fuel System Test Mode Schematic (Right Amad or Engine Operating) 161520 THRU 161761 (Sheet 3)



LEGEND

STATIC	INDICATES NO FUEL FLOW
FUEL	HIGHWAY FOR MULTIPLE FUEL PATTERNS
	TRANSFER
	SCAVENGE
	TRANSFER MOTIVE FLOW
	MOTOVE FLOW
	FUEL DUMP
	REFUEL
	ENGINE FUEL SUPPLY
	HOT FUEL RECIRCULATION
	VENT

1. CONTINUITY TESTS:

A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.

B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.

C. DO NOT TEST FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE.

D. WHEN TESTING CONTINUITY, TEST FOR:

(1) SHORTS TO GROUND.
(2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
(3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
(4) SHIELD CONTINUITY.

2. NONSTANDARD SYMBOLS.

⊕ IDENTIFIES RELAY USED TO SWITCH TO LOW LEVEL CURRENT. SEE NOTE 1.

CHECK LIGHT

TELELIGHT

3. FUEL LOW LEVEL WARNING SYSTEM SCHEMATIC, WP013 00.
4. REFUEL/DEFUEL SYSTEM SCHEMATIC, WP004 00.
5. EXTERNAL FUEL SYSTEM SCHEMATIC, WP006 00.
6. FUEL PRESSURIZATION AND VENT SYSTEM SCHEMATIC, WP011 00.
7. FUEL DUMP SYSTEM SCHEMATIC, WP009 00.
8. ENGINE FUEL SUPPLY SYSTEM SCHEMATIC, WP008 00.
9. AMAD SYSTEM SCHEMATIC, A1-F18AC-240-500, WP007 00.
10. HYDRAULIC SYSTEM SCHEMATIC, A1-F18AC-450-500, WP003 00.
11. APU START SYSTEM SCHEMATIC, A1-F18AC-240-500, WP004 00.
12. MOTIVE FLOW LINE NORMALLY PLUGGED. MOTIVE FLOW LINE CONNECTED DURING INTERNAL TRANSFER TEST.
13. CG CONTROL SYSTEM CAUTION SCHEMATIC, WP014 00.
14. POWER DISTRIBUTION SYSTEM SCHEMATIC, A1-F18AC-420-500, WP005 00.
15. F/A-18A
16. F/A-18B
17. F/A-18B PLUG AND JACK POSITION ARE REVERSED FROM POSITION SHOWN.
18. 161520 THRU 161528.
19. 161702 AND UP.
20. 161520 THRU 161359.
21. 161360 AND UP.
22. 74A770174-9 CCM VALVE.
23. 161735 AND UP.
24. 161716 AND UP

07050104

Figure 1. Fuel System Test Mode Schematic (Right Amad or Engine Operating) 161520 THRU 161761 (Sheet 4)

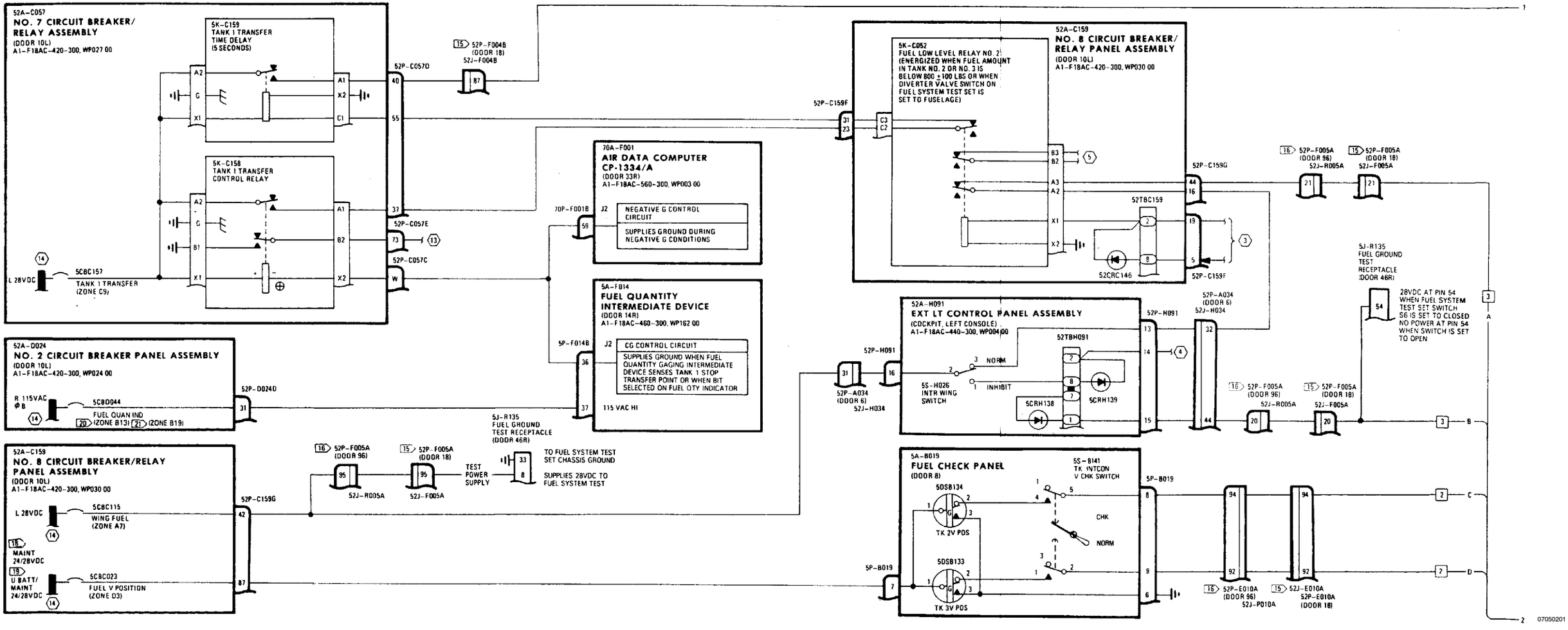


Figure 2. Fuel System Test Mode Schematic (Left Amad or Engine Operating) 161520 THRU 161761 (Sheet 1)

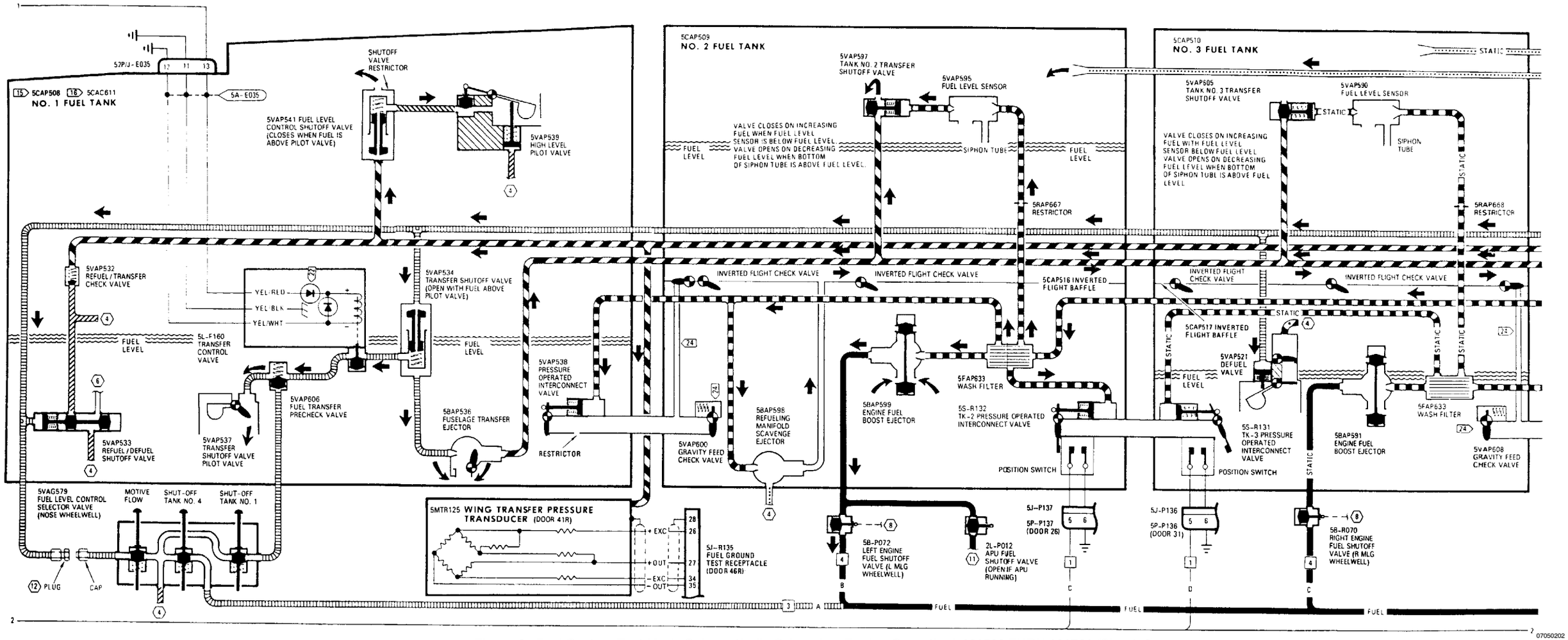


Figure 2. Fuel System Test Mode Schematic (Left Amad or Engine Operating) 161520 THRU 161761 (Sheet 2)

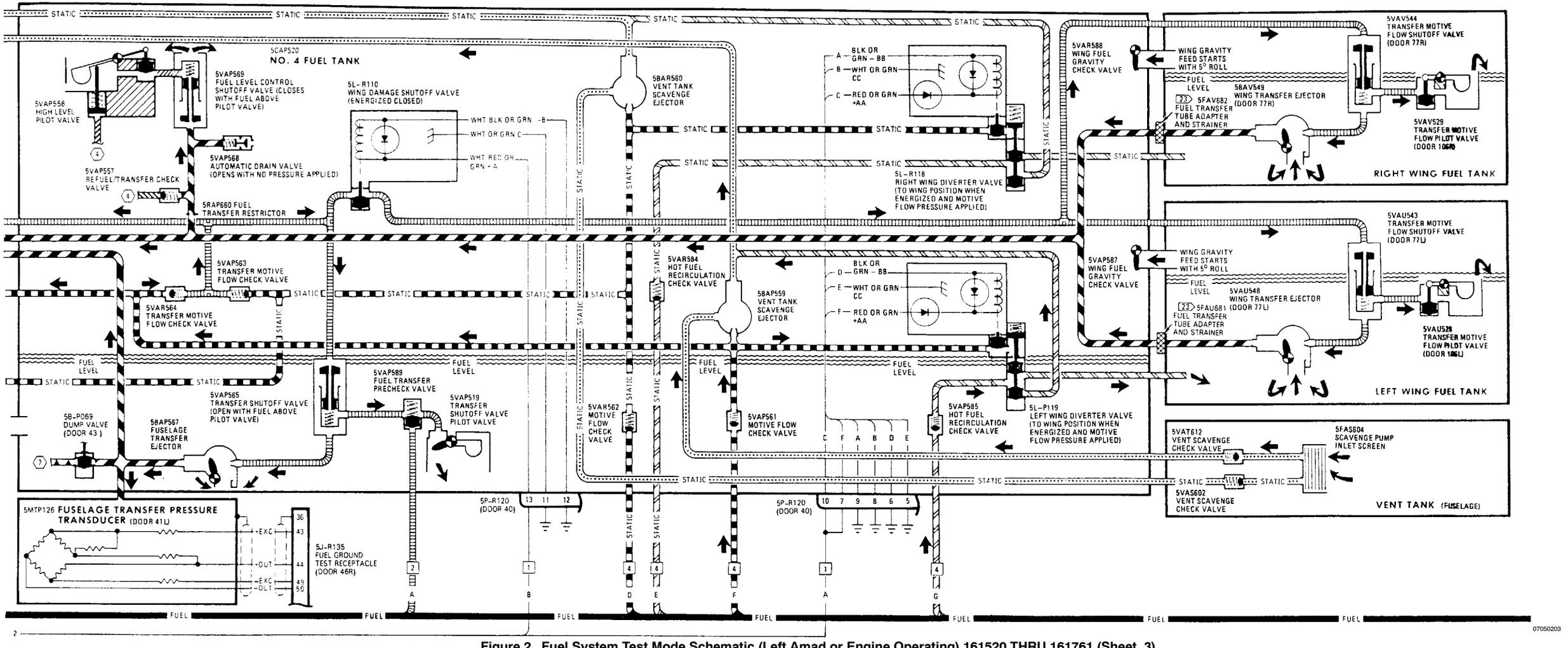
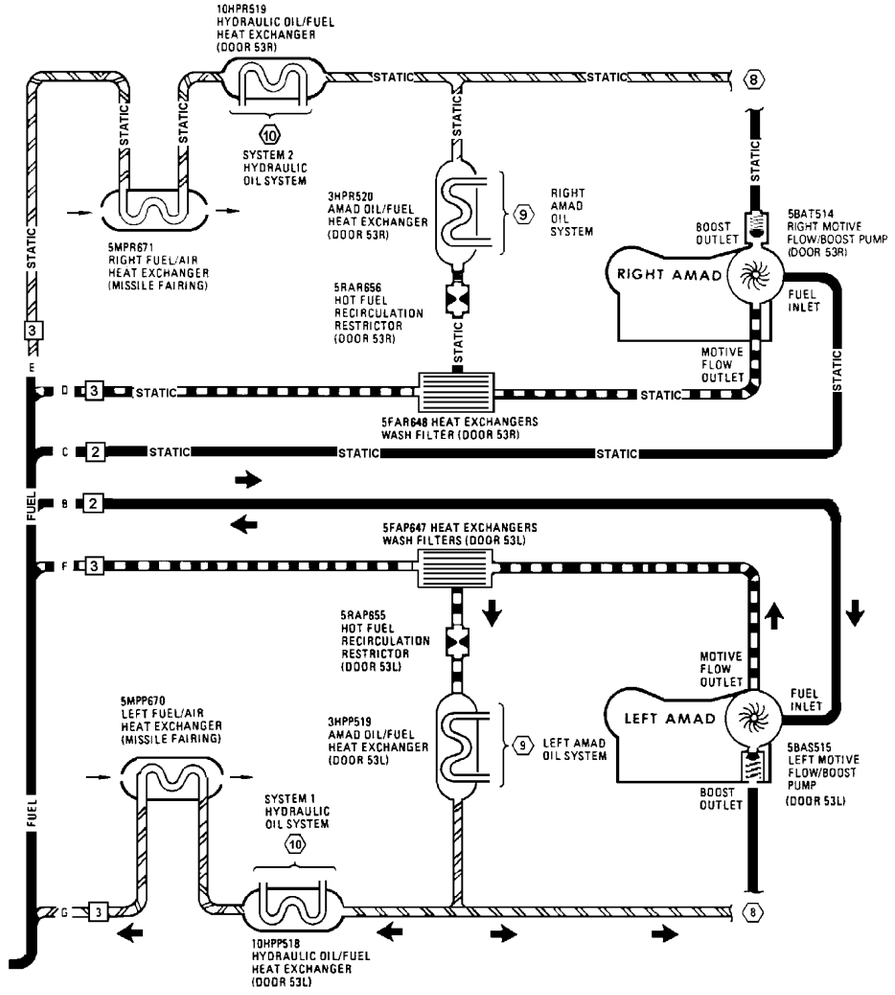


Figure 2. Fuel System Test Mode Schematic (Left Amad or Engine Operating) 161520 THRU 161761 (Sheet 3)



LEGEND

STATIC	INDICATES NO FUEL FLOW
FUEL	HIGHWAY FOR MULTIPLE FUEL PATTERNS
	TRANSFER
	SCAVENGE
	TRANSFER MOTIVE FLOW
	MOTOVE FLOW
	FUEL DUMP
	REFUEL
	ENGINE FUEL SUPPLY
	HOT FUEL RECIRCULATION
	VENT

1. CONTINUITY TESTS:

   A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.

   B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.

   C. DO NOT TEST FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE.

   D. WHEN TESTING CONTINUITY, TEST FOR:

      (1) SHORTS TO GROUND.
      (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
      (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
      (4) SHIELD CONTINUITY.

2. NONSTANDARD SYMBOLS.

   ⊕ IDENTIFIES RELAY USED TO SWITCH TO LOW LEVEL CURRENT. SEE NOTE 1.

   CHECK LIGHT

   TELELIGHT

(3) FUEL LOW LEVEL WARNING SYSTEM SCHEMATIC, WP013 00.
(4) REFUEL/DEFUEL SYSTEM SCHEMATIC, WP004 00.
(5) EXTERNAL FUEL SYSTEM SCHEMATIC, WP006 00.
(6) FUEL PRESSURIZATION AND VENT SYSTEM SCHEMATIC, WP011 00.
(7) FUEL DUMP SYSTEM SCHEMATIC, WP009 00.
(8) ENGINE FUEL SUPPLY SYSTEM SCHEMATIC, WP008 00.
(9) AMAD SYSTEM SCHEMATIC, A1-F18AC-240-500, WP007 00.
(10) HYDRAULIC SYSTEM SCHEMATIC, A1-F18AC-450-500, WP003 00.
(11) APU START SYSTEM SCHEMATIC, A1-F18AC-240-500, WP004 00.
(12) MOTIVE FLOW LINE NORMALLY PLUGGED. MOTIVE FLOW LINE CONNECTED DURING INTERNAL TRANSFER TEST.
(13) CG CONTROL SYSTEM CAUTION SCHEMATIC, WP014 00.
(14) POWER DISTRIBUTION SYSTEM SCHEMATIC, A1-F18AC-420-500, WP005 00.
(15) F/A-18A
(16) F/A-18B
(17) F/A-18B PLUG AND JACK POSITION ARE REVERSED FROM POSITION SHOWN.
(18) 161520 THRU 161528.
(19) 161702 AND UP.
(20) 161520 THRU 161359.
(21) 161360 AND UP.
(22) 74A770174-9 CCM VALVE.
(23) 161735 AND UP.
(24) 161716 AND UP

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Figure 2. Fuel System Test Mode Schematic (Left Amad or Engine Operating) 161520 THRU 161761 (Sheet 4)

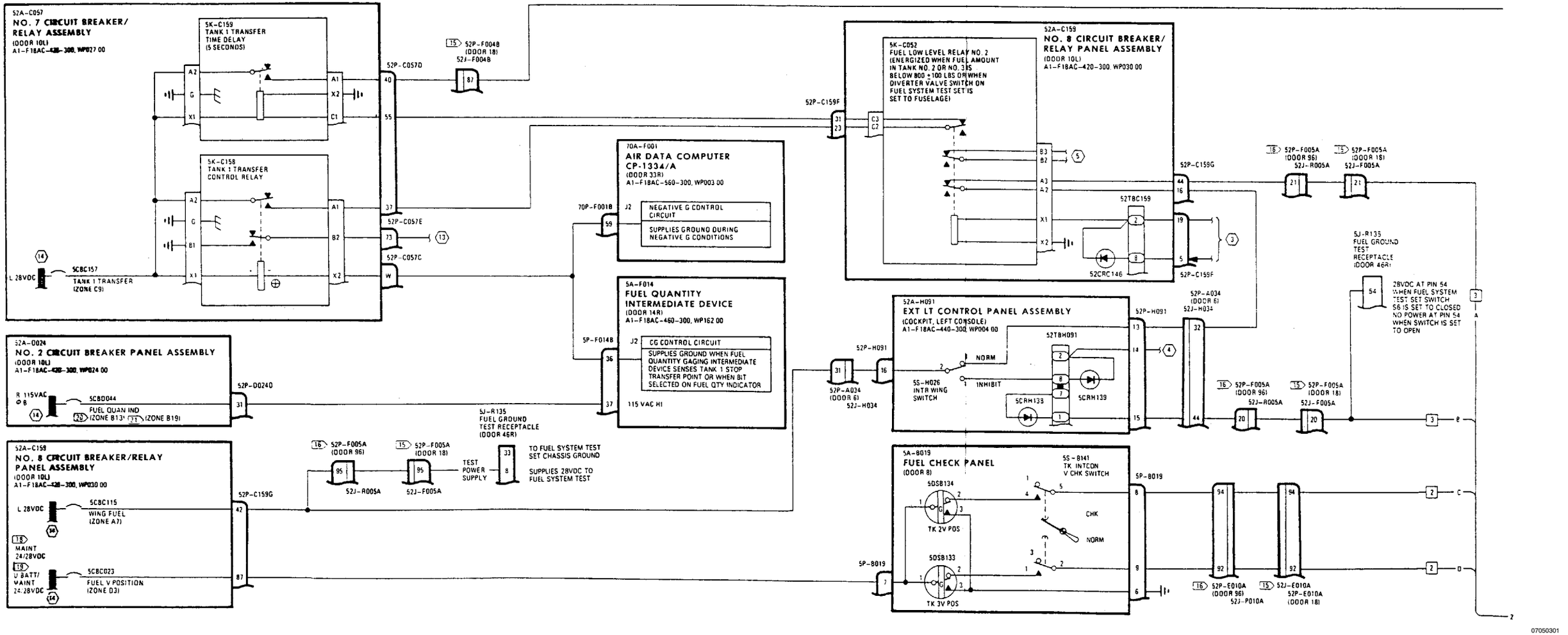


Figure 3. Fuel System Test Mode Schematic (Left and Right Engine Operating) 161520 THRU 161761 (Sheet 1)

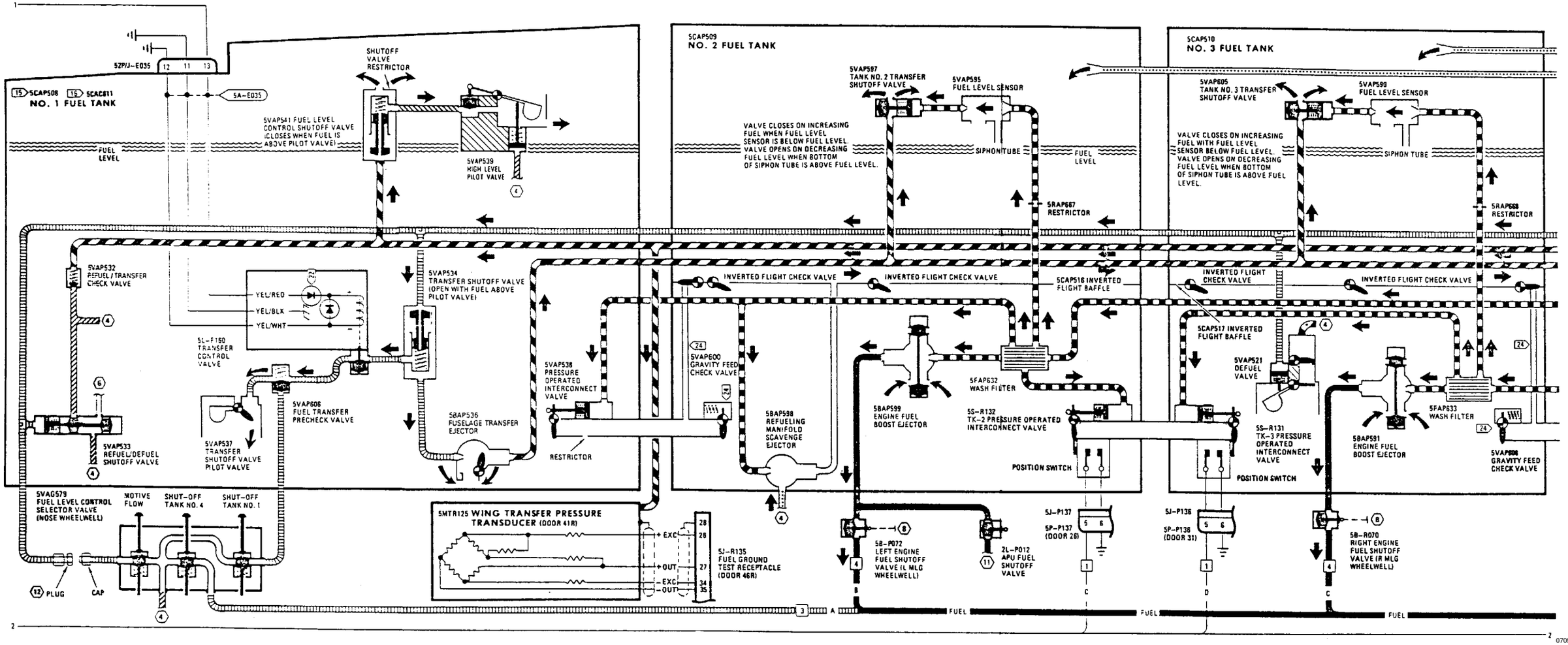


Figure 3. Fuel System Test Mode Schematic (Left and Right Engine Operating) 161520 THRU 161761 (Sheet 2)

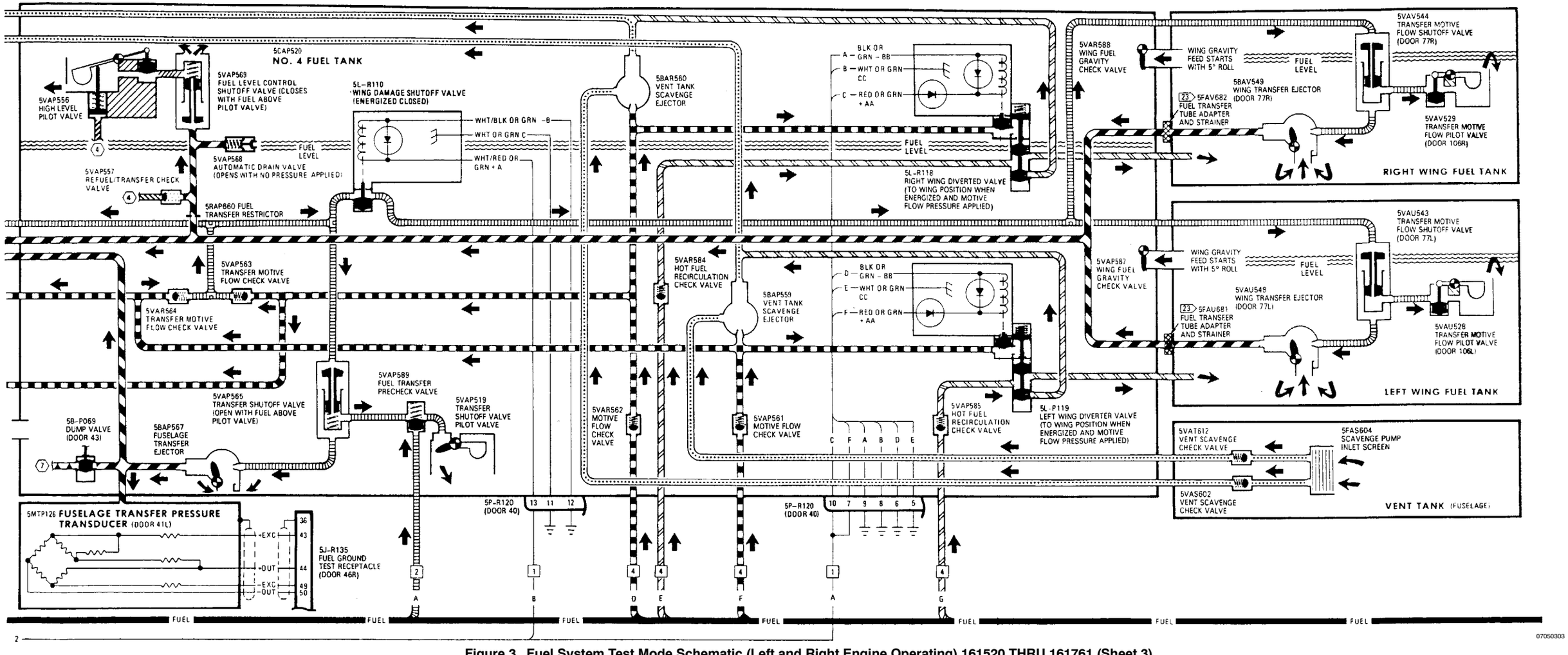
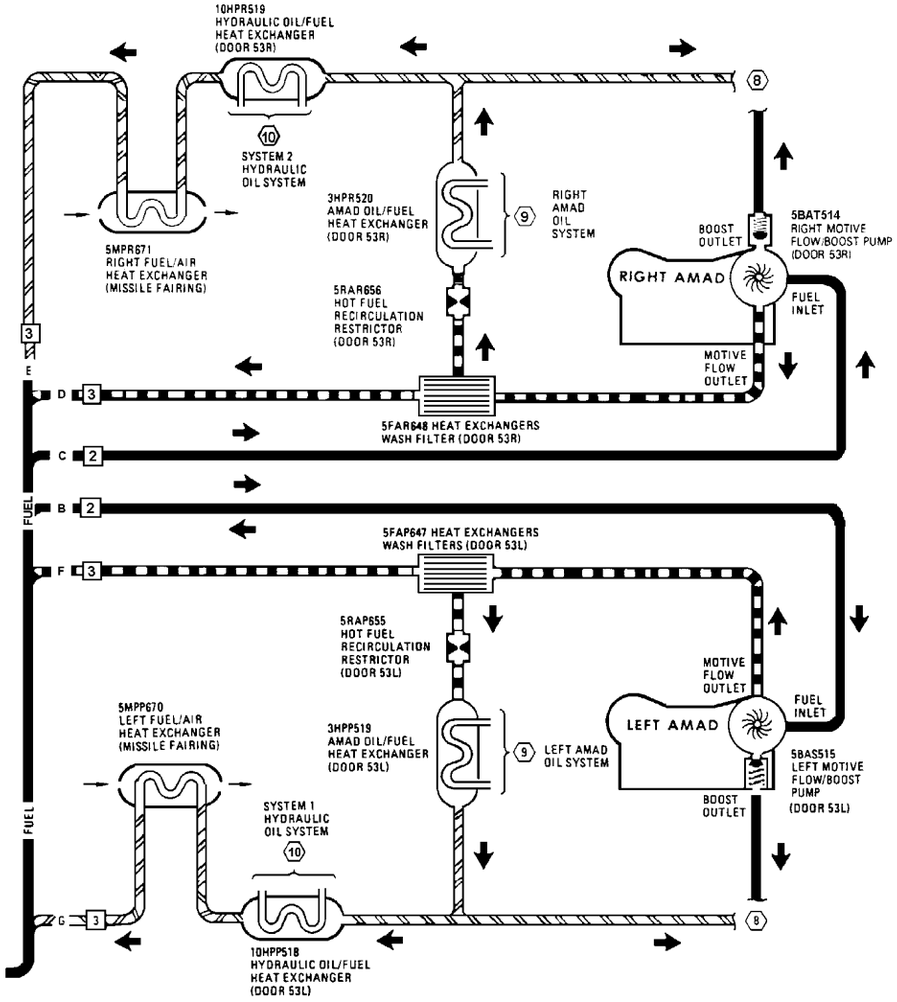


Figure 3. Fuel System Test Mode Schematic (Left and Right Engine Operating) 161520 THRU 161761 (Sheet 3)



LEGEND

STATIC	INDICATES NO FUEL FLOW
FUEL	HIGHWAY FOR MULTIPLE FUEL PATTERNS
	TRANSFER
	SCAVENGE
	TRANSFER MOTIVE FLOW
	MOTOVE FLOW
	FUEL DUMP
	REFUEL
	ENGINE FUEL SUPPLY
	HOT FUEL RECIRCULATION
	VENT

1. CONTINUITY TESTS:

   A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.

   B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.

   C. DO NOT TEST FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE.

   D. WHEN TESTING CONTINUITY, TEST FOR:

      (1) SHORTS TO GROUND
      (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS
      (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
      (4) SHIELD CONTINUITY.

2. NONSTANDARD SYMBOLS.

   IDENTIFIES RELAY USED TO SWITCH TO LOW LEVEL CURRENT. SEE NOTE 1.

   CHECK LIGHT

   TELELIGHT

(3) FUEL LOW LEVEL WARNING SYSTEM SCHEMATIC, WP013 00.
(4) REFUEL/DEFUEL SYSTEM SCHEMATIC, WP004 00.
(5) EXTERNAL FUEL SYSTEM SCHEMATIC, WP006 00.
(6) FUEL PRESSURIZATION AND VENT SYSTEM SCHEMATIC, WP011 00.
(7) FUEL DUMP SYSTEM SCHEMATIC, WP009 00.
(8) ENGINE FUEL SUPPLY SYSTEM SCHEMATIC, WP008 00.
(9) AMAD SYSTEM SCHEMATIC, A1-F18AC-240-500, WP007 00.
(10) HYDRAULIC SYSTEM SCHEMATIC, A1-F18AC-450-500, WP003 00.
(11) APU START SYSTEM SCHEMATIC, A1-F18AC-240-500, WP004 00.
(12) MOTIVE FLOW LINE NORMALLY PLUGGED. MOTIVE FLOW LINE CONNECTED DURING INTERNAL TRANSFER TEST.
(13) CG CONTROL SYSTEM CAUTION SCHEMATIC, WP014 00.
(14) POWER DISTRIBUTION SYSTEM SCHEMATIC, A1-F18AC-420-500, WP005 00.
(15) F/A-18A
(16) F/A-18B
(17) F/A-18B PLUG AND JACK POSITION ARE REVERSED FROM POSITION SHOWN.
(18) 161520 THRU 161528.
(19) 161702 AND UP.
(20) 161520 THRU 161359.
(21) 161360 AND UP.
(22) 74A770174-9 CCM VALVE.
(23) 161735 AND UP.
(24) 161716 AND UP

07050304

Figure 3. Fuel System Test Mode Schematic (Left and Right Engine Operating) 161520 THRU 161761 (Sheet 4)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

INTERNAL FUEL TRANSFER SYSTEM

EFFECTIVITY: 161924 THRU 161987: ALSO 161353 THRU 161519 AFTER F/A-18 AFC 21, 39 AND 53

Reference Material

None

Alphabetical Index

Subject	Page No.
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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA-F/A-18-00072C1)	1 Nov 86	-
F/A-18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve and Raised Inverted Baffle (ECP MDA-F/A-18-00055)	1 Nov 86	-
F/A-18 AFC 21	-	Addition of Fuel/Air Heat Exchanger (ECP MDA-F/A-18-00033)	1 Nov 86	-

Record of Applicable Technical Directives (Continued)

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 48	-	Automatic AC Bus Isolation, Incorporation of (ECP MDA-F/A-18-00121)	15 Jun 88	-
F/A-18 AFC 74	-	Additional Weapons Capability, Installation of (ECP MDA-F/A-18-00090C1)	23 Aug 91	-

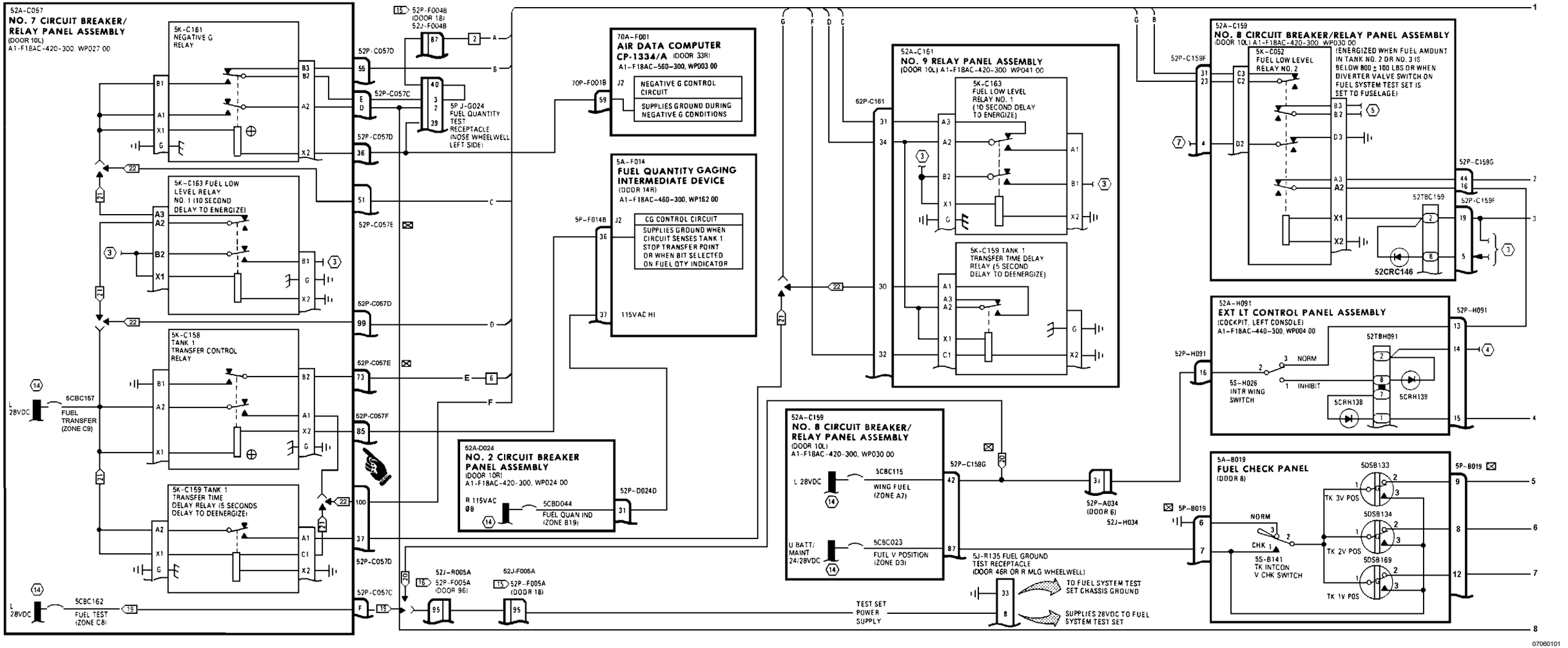


Figure 1. Internal Fuel Transfer System Schematic, 161924 THRU 161987; ALSO 161353 THRU 161519 AFTER F18 AFC 021, 039 AND 053 (Sheet 1)

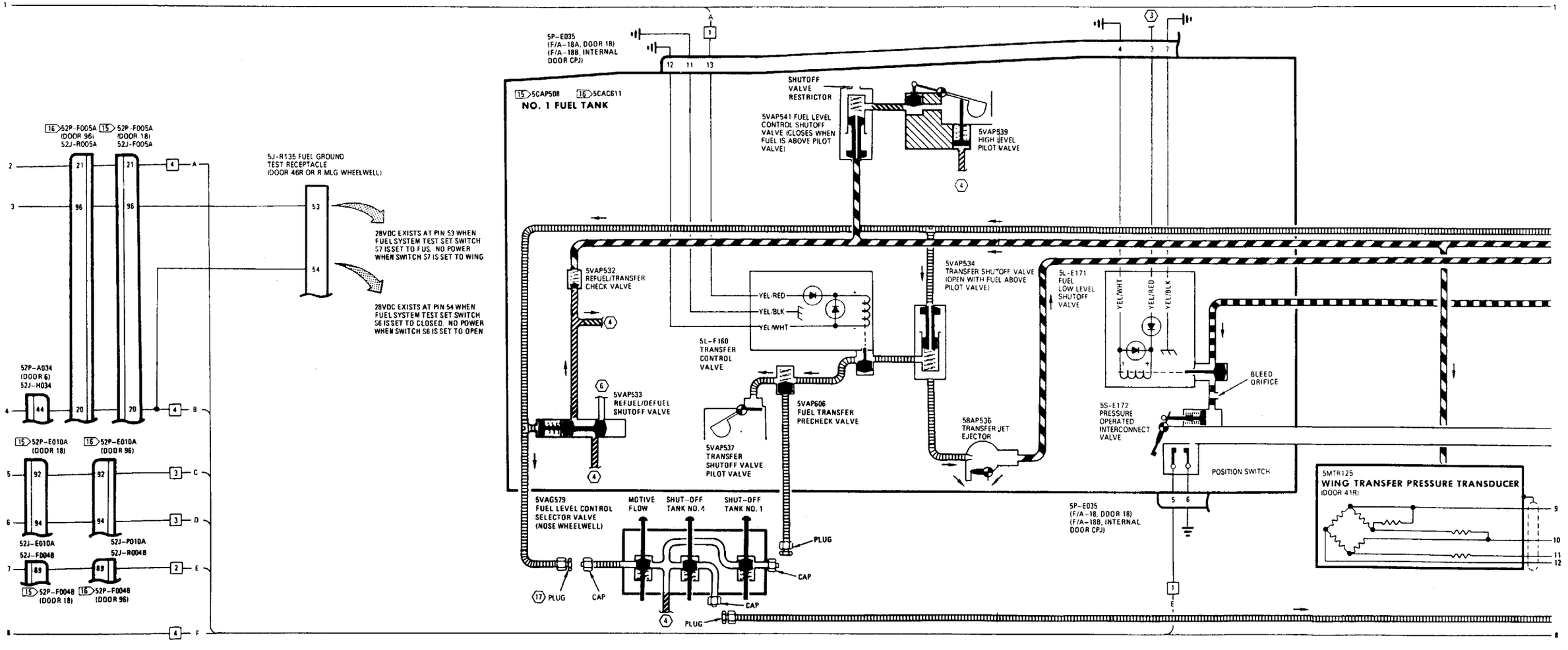
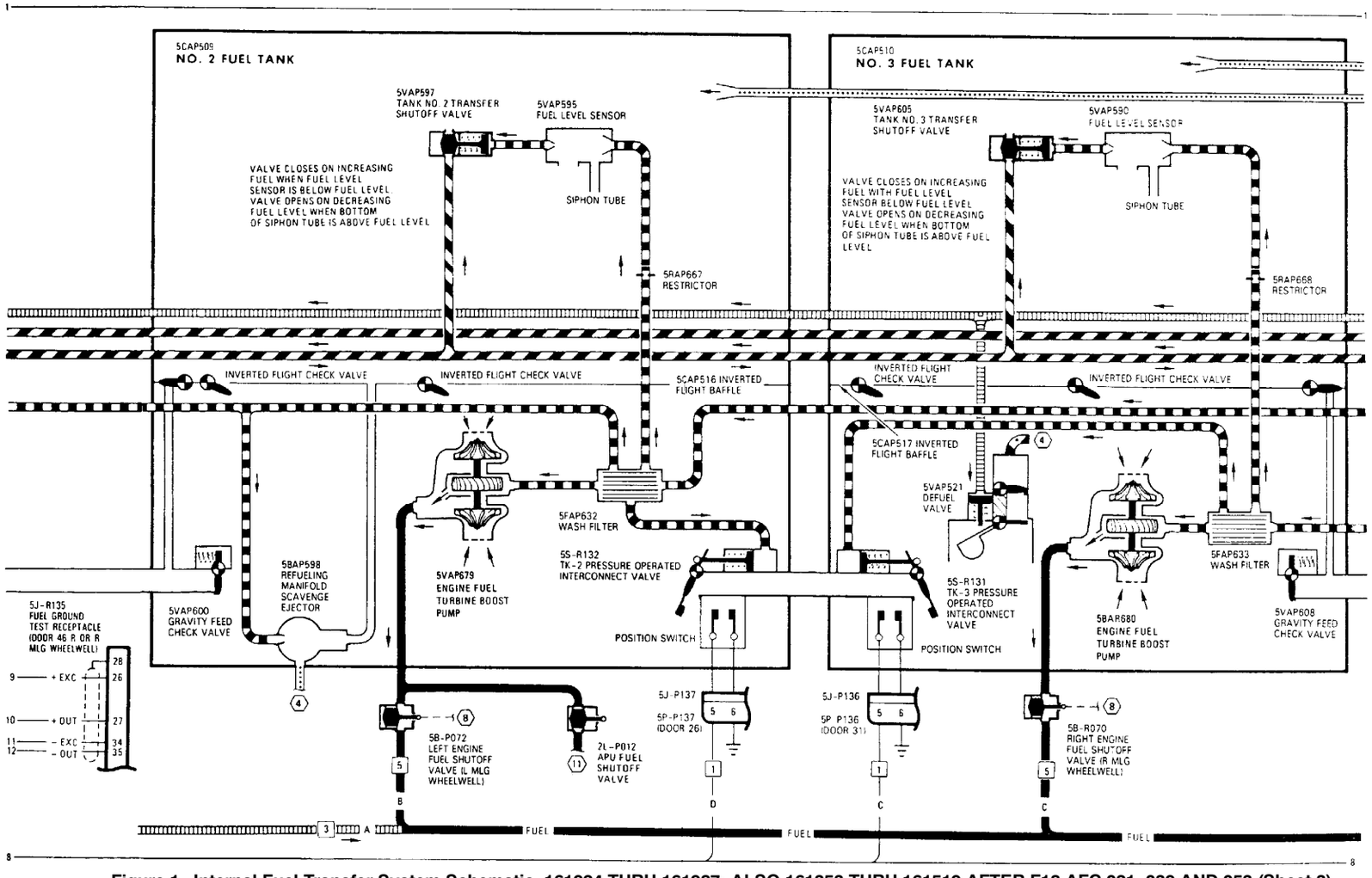


Figure 1. Internal Fuel Transfer System Schematic, 161924 THRU 161987; ALSO 161353 THRU 161519 AFTER F18 AFC 021, 039 AND 053 (Sheet 2)



07060103

Figure 1. Internal Fuel Transfer System Schematic, 161924 THRU 161987; ALSO 161353 THRU 161519 AFTER F18 AFC 021, 039 AND 053 (Sheet 3)

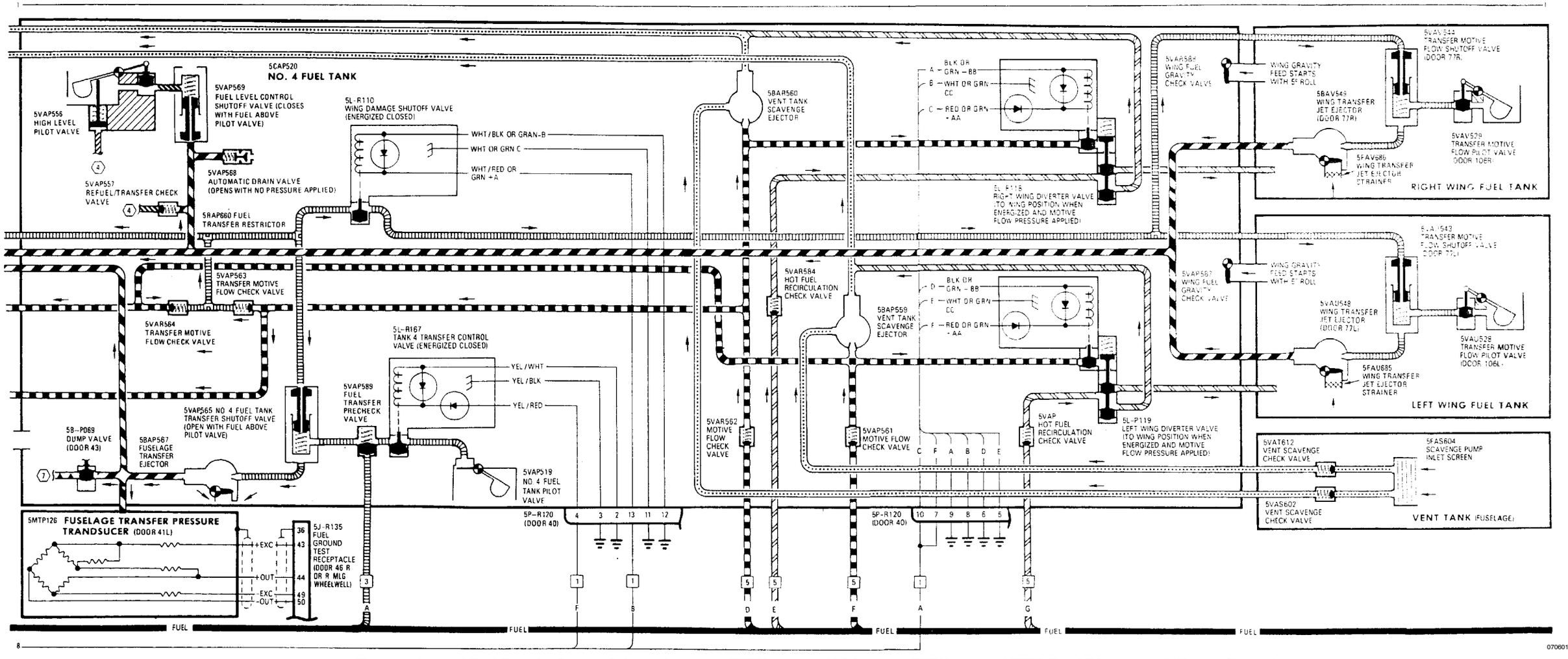
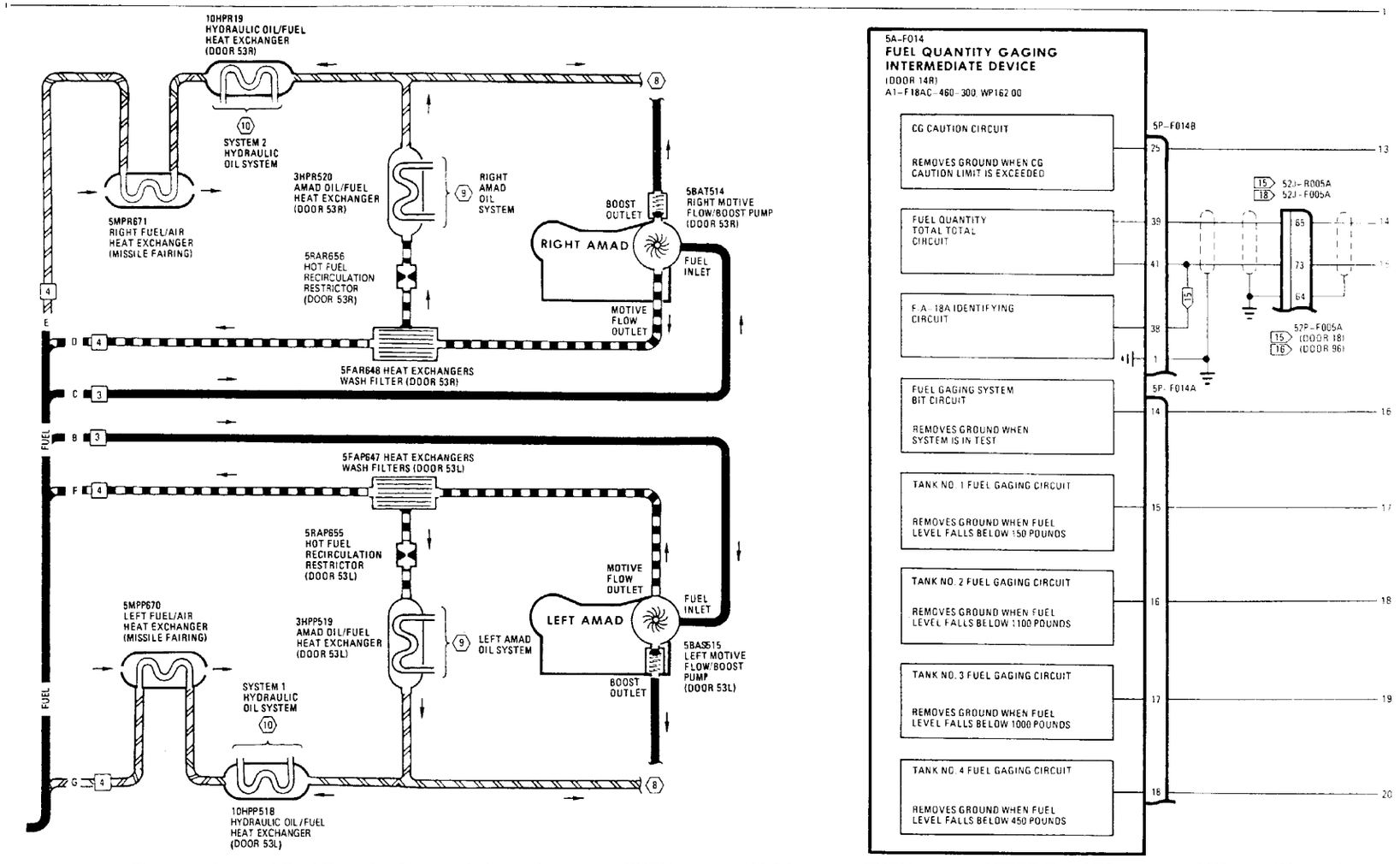


Figure 1. Internal Fuel Transfer System Schematic, 161924 THRU 161987; ALSO 161353 THRU 161519 AFTER F18 AFC 021, 039 AND 053 (Sheet 4)



07060105

Figure 1. Internal Fuel Transfer System Schematic, 161924 THRU 161987; ALSO 161353 THRU 161519 AFTER F18 AFC 021, 039 AND 053 (Sheet 5)

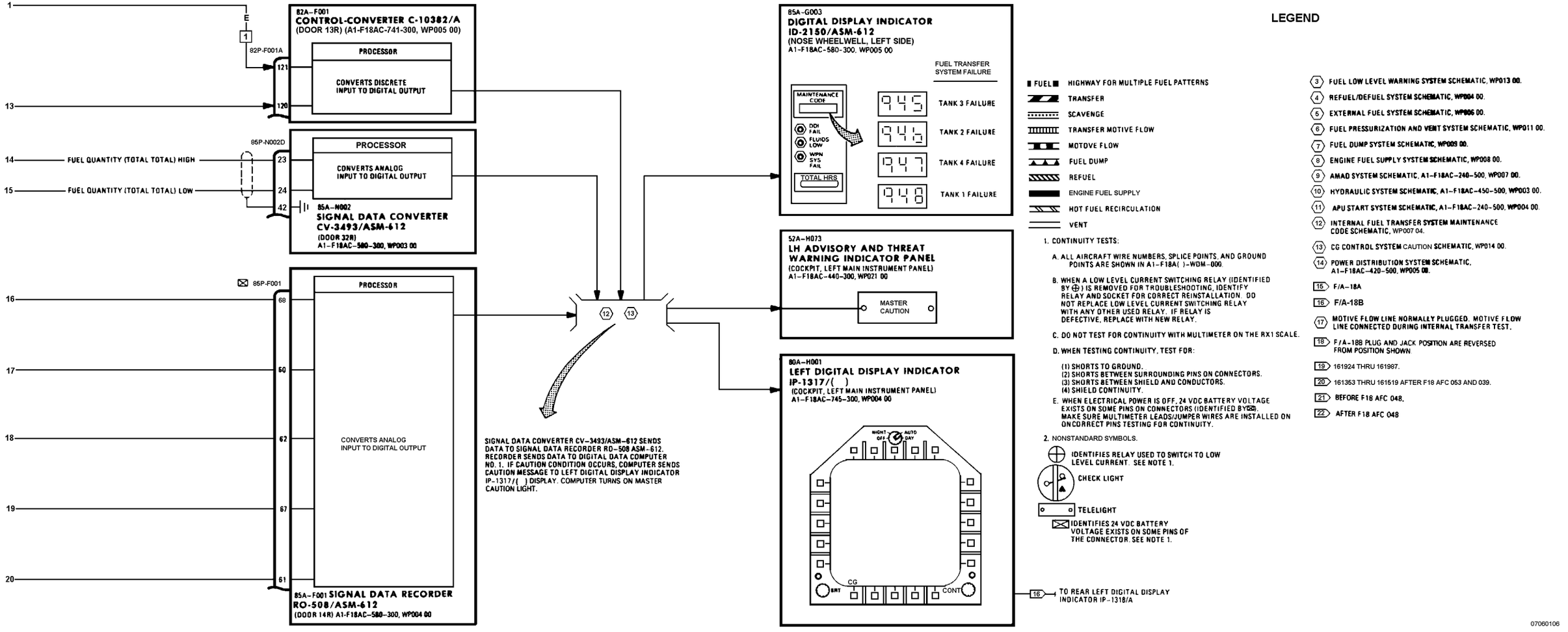


Figure 1. Internal Fuel Transfer System Schematic, 161924 THRU 161987; ALSO 161353 THRU 161519 AFTER F18 AFC 021, 039 AND 053 (Sheet 6)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

INTERNAL FUEL TRANSFER SYSTEM

EFFECTIVITY: 162394 AND UP

Reference Material

None

Alphabetical Index

Subject	Page No.
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Record of Applicable Technical Directives

None

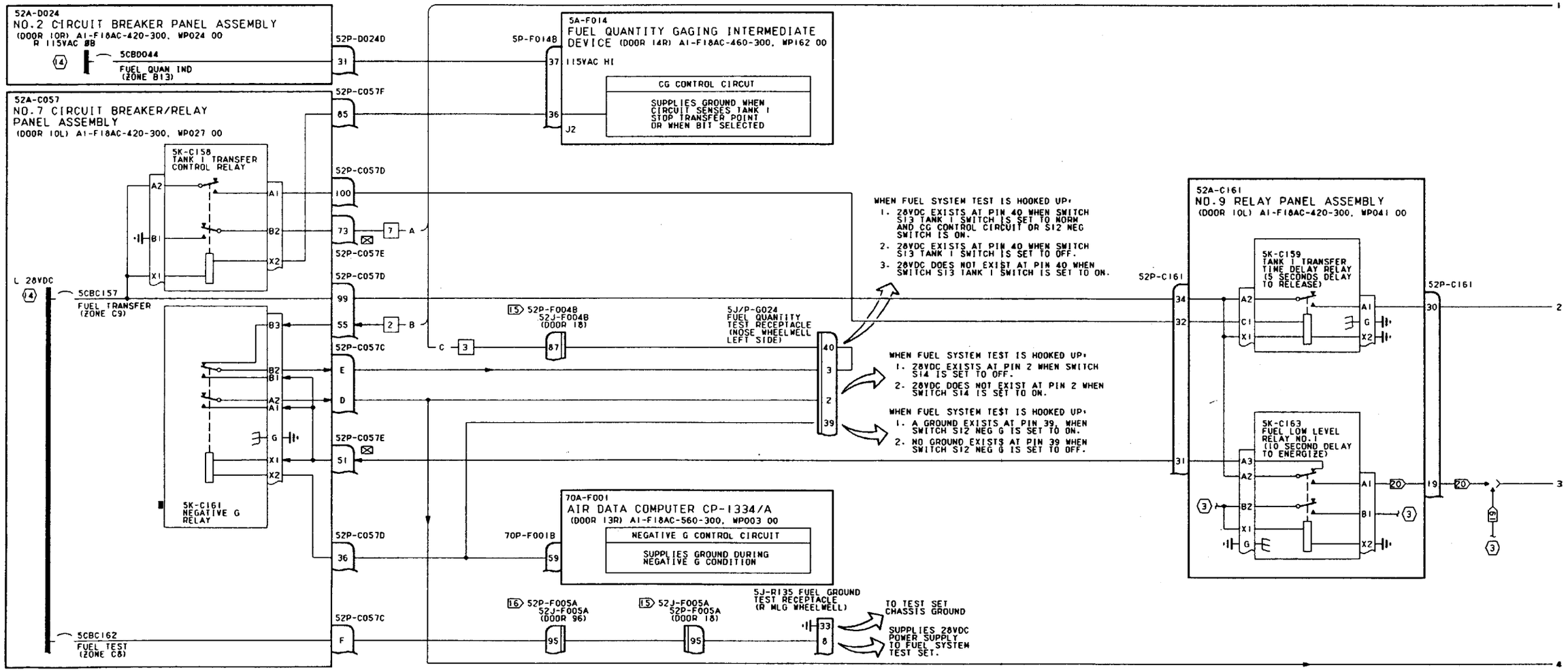


Figure 1. Internal Fuel Transfer System Schematic, 162394 AND UP (Sheet 1)

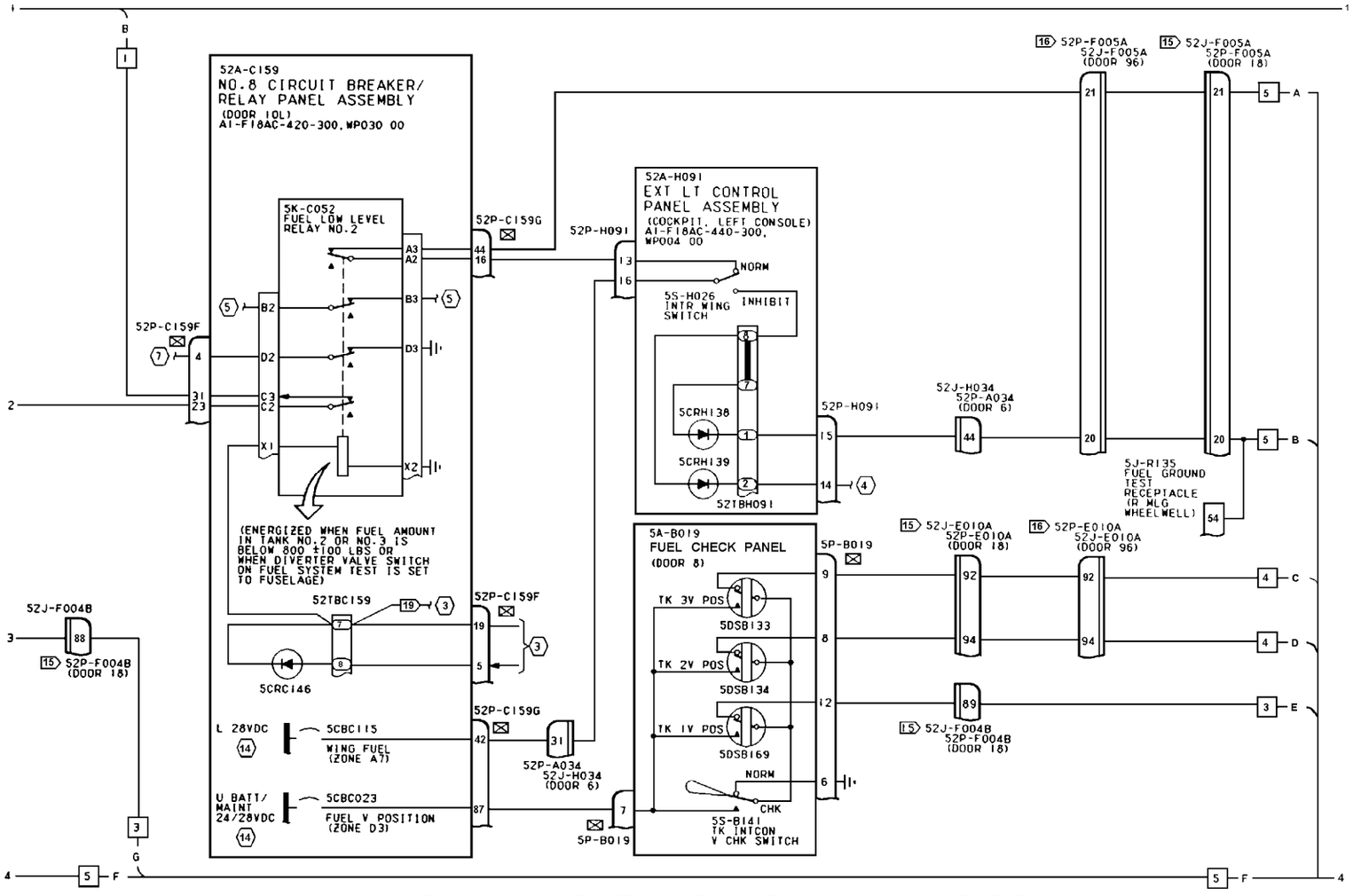
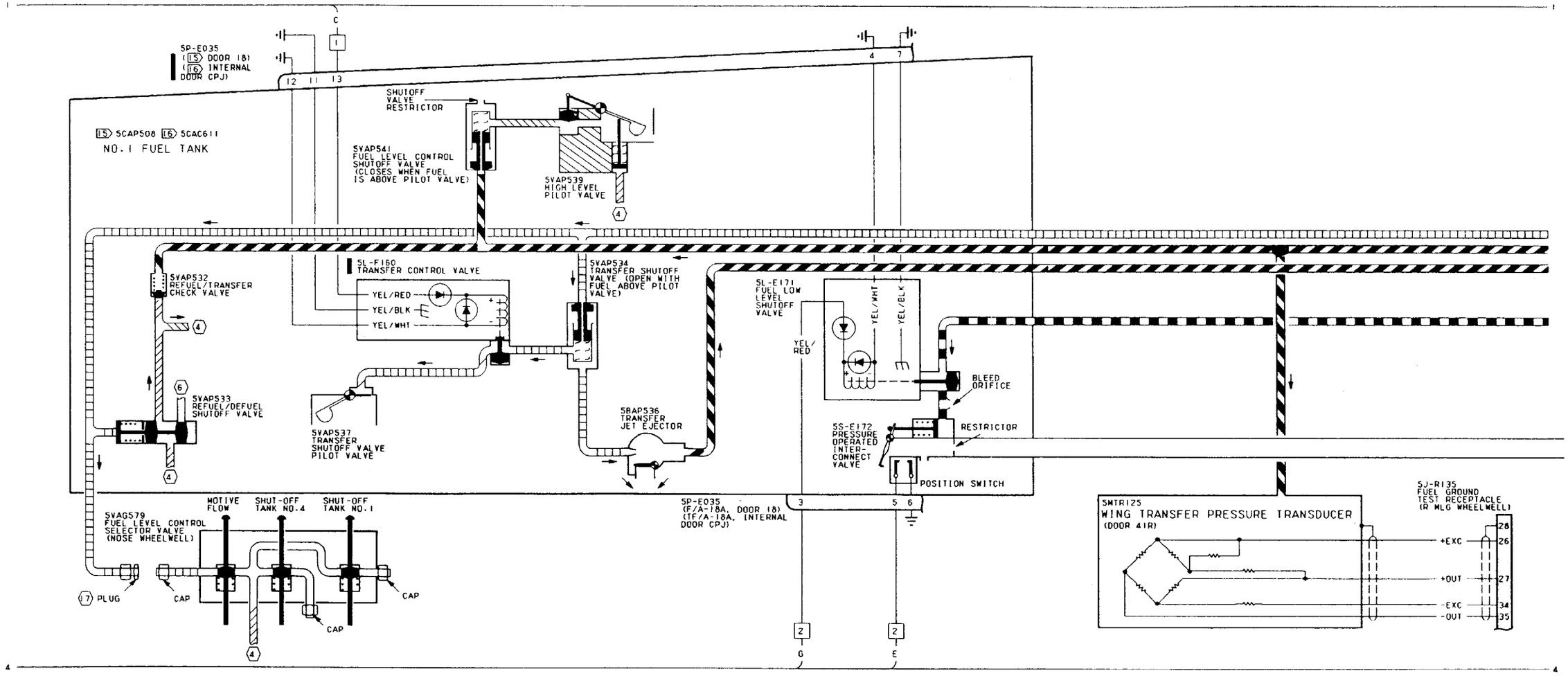


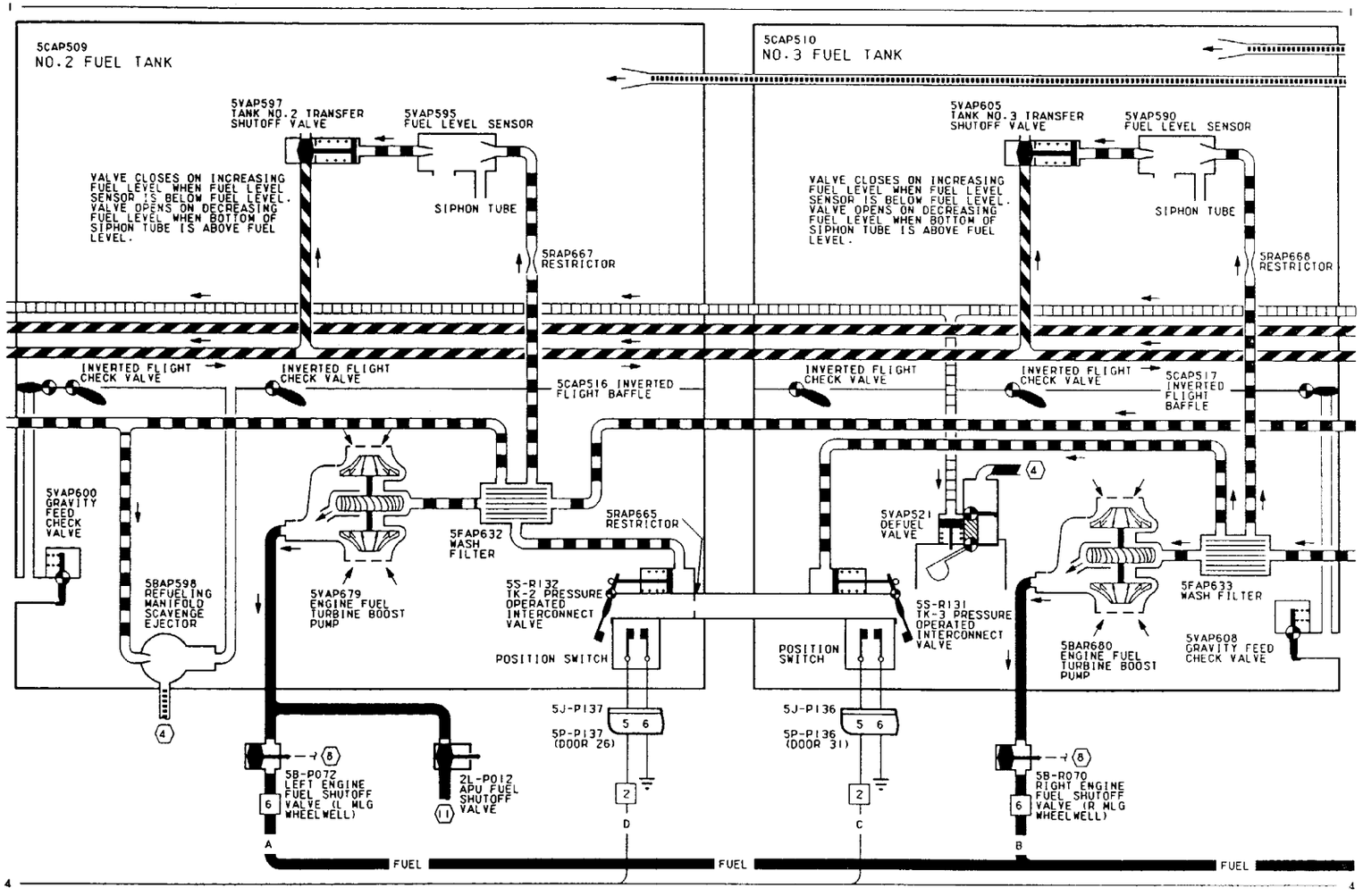
Figure 1. Internal Fuel Transfer System Schematic, 162394 AND UP (Sheet 2)

07070102



07070103

Figure 1. Internal Fuel Transfer System Schematic, 162394 AND UP (Sheet 3)



07070104

Figure 1. Internal Fuel Transfer System Schematic, 162394 AND UP (Sheet 4)

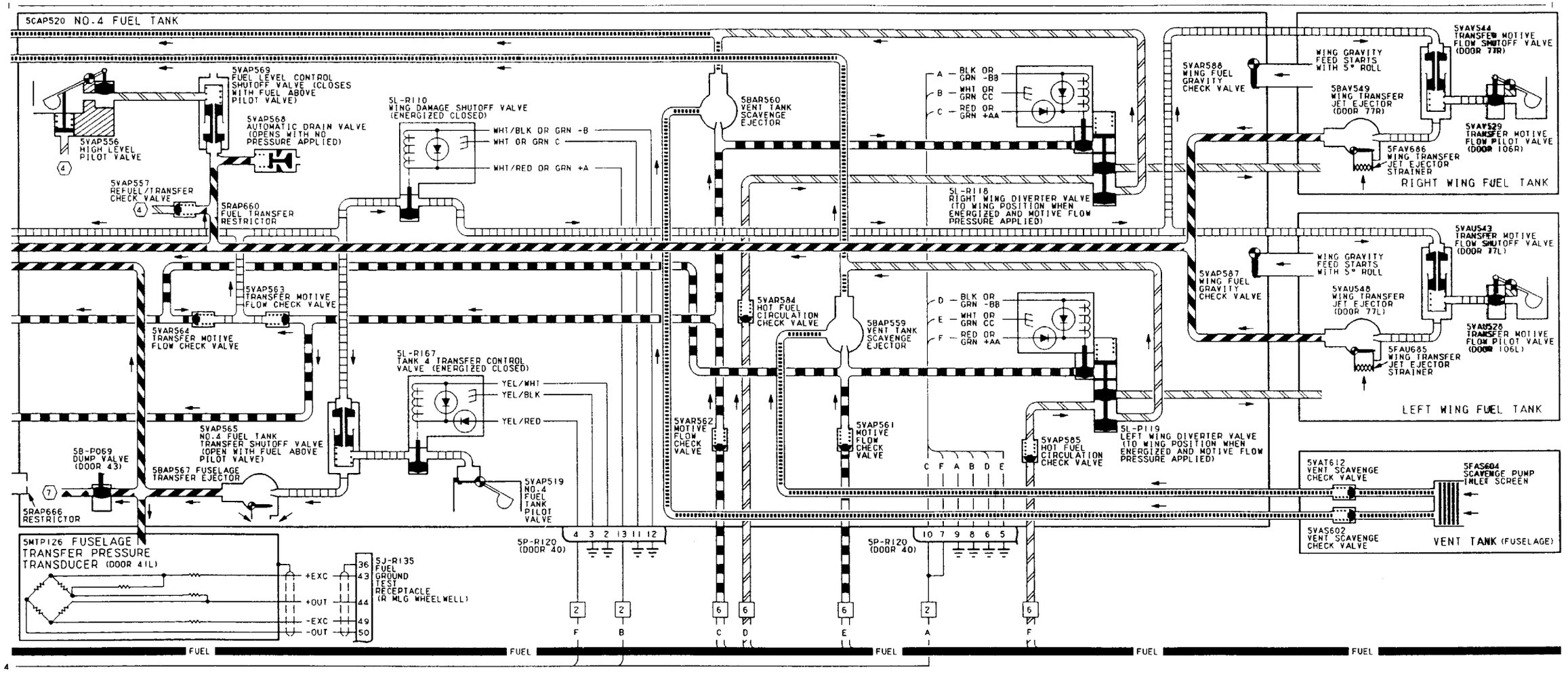
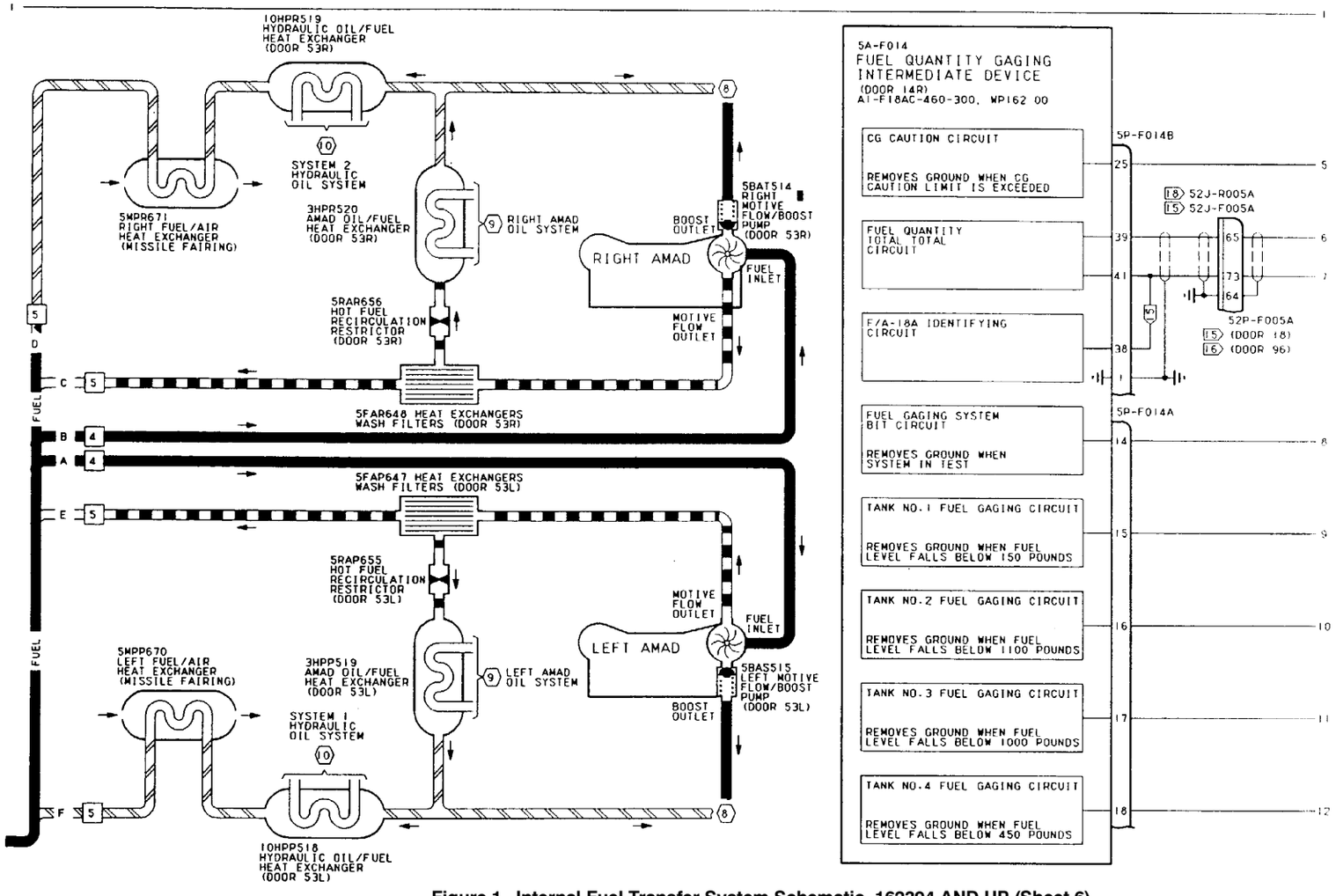


Figure 1. Internal Fuel Transfer System Schematic, 162394 AND UP (Sheet 5)



07070106

Figure 1. Internal Fuel Transfer System Schematic, 162394 AND UP (Sheet 6)

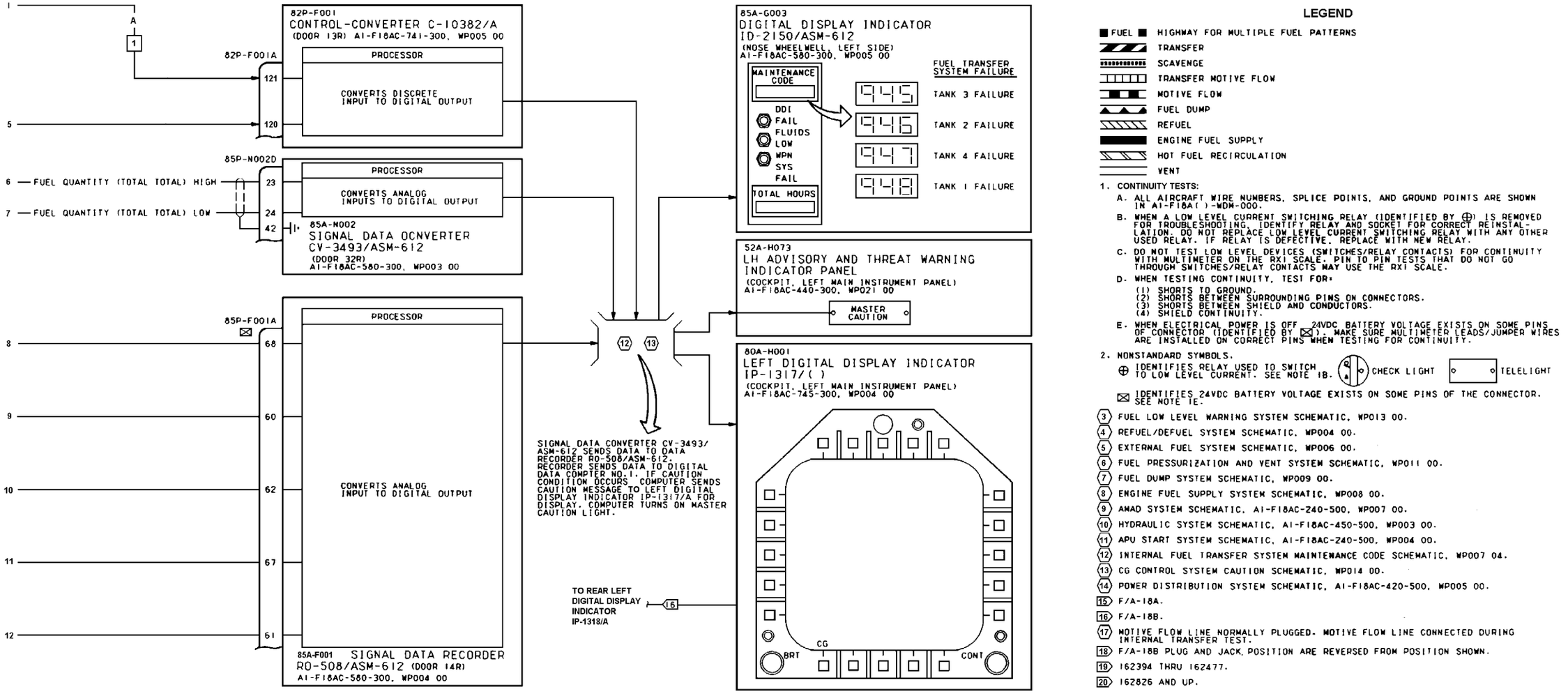


Figure 1. Internal Fuel Transfer System Schematic, 162394 AND UP (Sheet 7)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

ENGINE FUEL SUPPLY SYSTEM

Reference Material

None

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5CBD064 - R/FUEL S/O VALVE (Figure 2, Sheet 1)	11
5CBD065 - CROSSFEED FUEL VLV (Figure 2, Sheet 1)	11
5CBD066 - L/FUEL S/O VALVE (Figure 2, Sheet 1)	11
Engine Fuel Supply System Component Locator, Figure 1	2
Engine Fuel Supply System Maintenance Code and Caution Schematic, Figure 3	14
Engine Fuel Supply System Schematic, Figure 2	11

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 IAFC-56	-	Fuel System Components Replacement and System Inspections	15 Jan 86	-
F18 AFC-18	-	Incorporation of Fuel Turbine Boost Pump/Sealing of Raised Baffle in Tank 2 and 3 (ECP 00077)	1 Aug 86	-
F18 AFC 70	-	Incorporation of Motive Flow Boost Pressure Switch (ECP 00158R2)	1 Aug 86	-

NOMENCLATURE	INDEX NO.	REF DES
BOOST INLET PRESSURE TRANSDUCER		
LEFT	9	5MTP127
RIGHT	16	5MTR128
CROSSFEED MANIFOLD	14	
DIGITAL DISPLAY INDICATOR ID-2150/ASM-612	4	85A-G003
ENGINE FUEL COUPLING CHECK VALVE	12	
LEFT		5VAP639
RIGHT		5VAR640
ENGINE FUEL SHUTOFF VALVE	11	
LEFT		5B-P072
RIGHT		5B-R070
4 FUEL BOOST PRESSURE SWITCH	13	
LEFT		5S-P113
RIGHT		5S-P114
FUEL CROSSFEED SHUTOFF VALVE	10	5B-P071
FUEL TEMPERATURE SENSOR	17	
LEFT		5TCP111
RIGHT		5TCR112
LEFT DIGITAL DISPLAY INDICATOR IP-1317( )	3	80A-H001
LH ADVISORY AND THREAT WARNING INDICATOR PANEL	1	52A-H073
LEFT ENGINE FIRE WARNING LIGHT		4DSJ004
MASTER CAUTION LIGHT/SWITCH		
MOTIVE FLOW/BOOST PUMP	15	
LEFT		5BAS515
RIGHT		5BAT514
2 NO. 2 FUEL TANK ENGINE FUEL BOOST JET EJECTOR	18	5BAP599
3 NO. 2 FUEL TANK ENGINE FUEL TURBINE BOOST PUMP		5BAP679
2 NO. 3 FUEL TANK ENGINE FUEL BOOST JET EJECTOR	19	5BAP591
3 NO. 3 FUEL TANK ENGINE FUEL TURBINE BOOST PUMP		5BAR680
NO. 4 RELAY PANEL ASSEMBLY	5	52A-N118
NO. 5 CIRCUIT BREAKER PANEL ASSEMBLY	7	52A-D092
NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY	8	52A-C057
RH ADVISORY AND THREAT WARNING INDICATOR PANEL	2	52A-J074
RIGHT ENGINE FIRE WARNING LIGHT AND SWITCH		4DSJ004
SIGNAL DATA CONVERTER CV-3493/ASM-612	6	85A-N002

LEGEND

1. AIRCRAFT CONNECTOR LOCATIONS ARE SHOWN IN A1-F18A( )-WDM-000.

2 161353 THRU 161761 BEFORE F18 AFC 018.

3 161924 AND UP, ALSO 161353 THRU 161761 AFTER F18 AFC 018

4 163119 AND UP, ALSO 161353 THRU 161924 BEFORE F18 1AFC 056 OR 161353 THRU 163118 AFTER F18 AFC 070.

00800101

Figure 1. Engine Fuel Supply System Component Locator (Sheet 1)

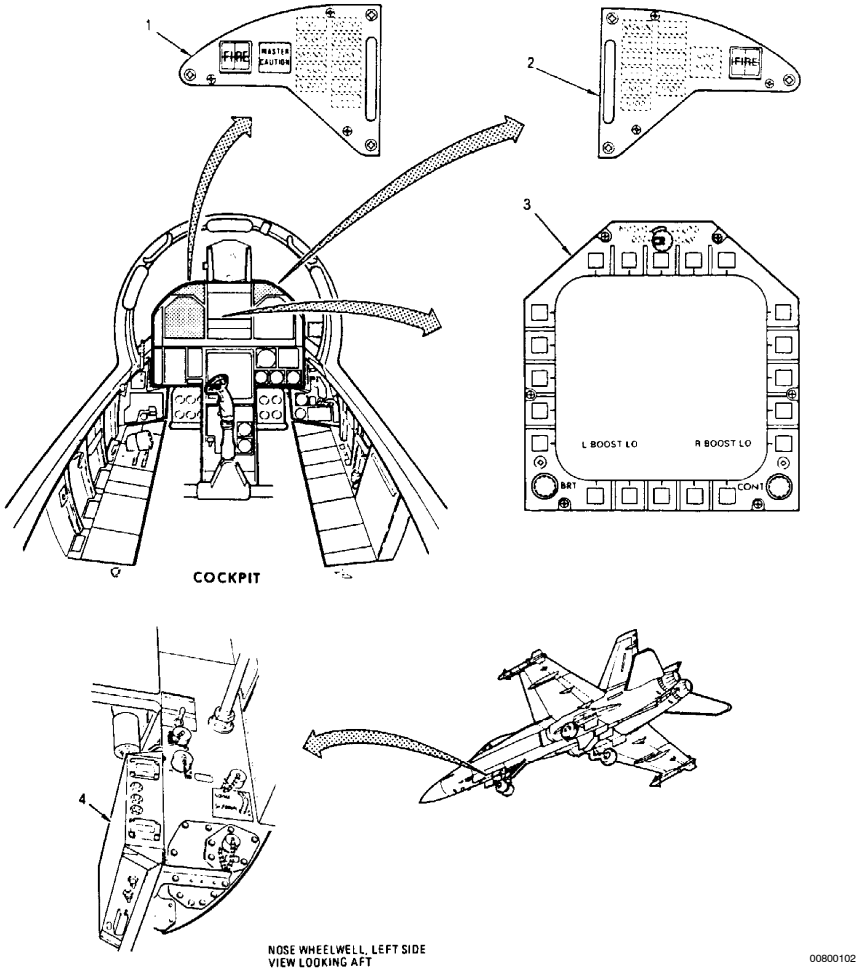


Figure 1. Engine Fuel Supply System Component Locator (Sheet 2)

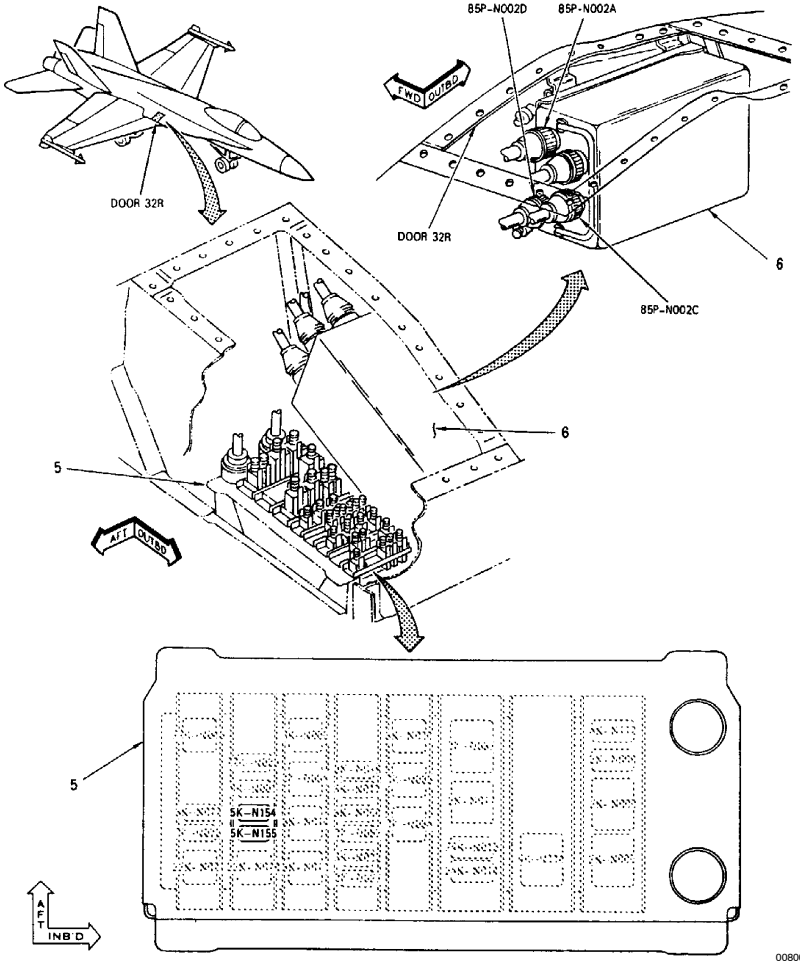
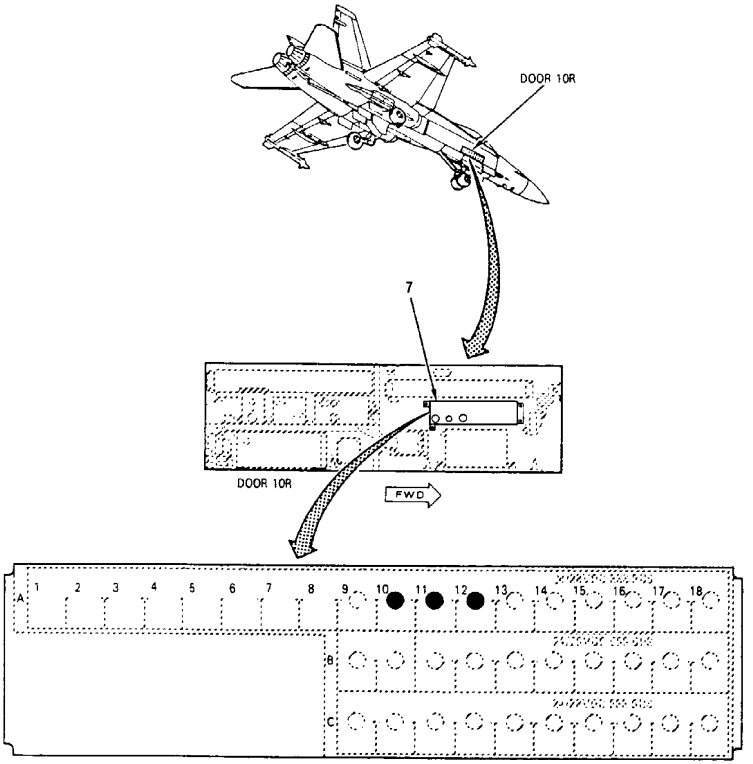


Figure 1. Engine Fuel Supply System Component Locator (Sheet 3)

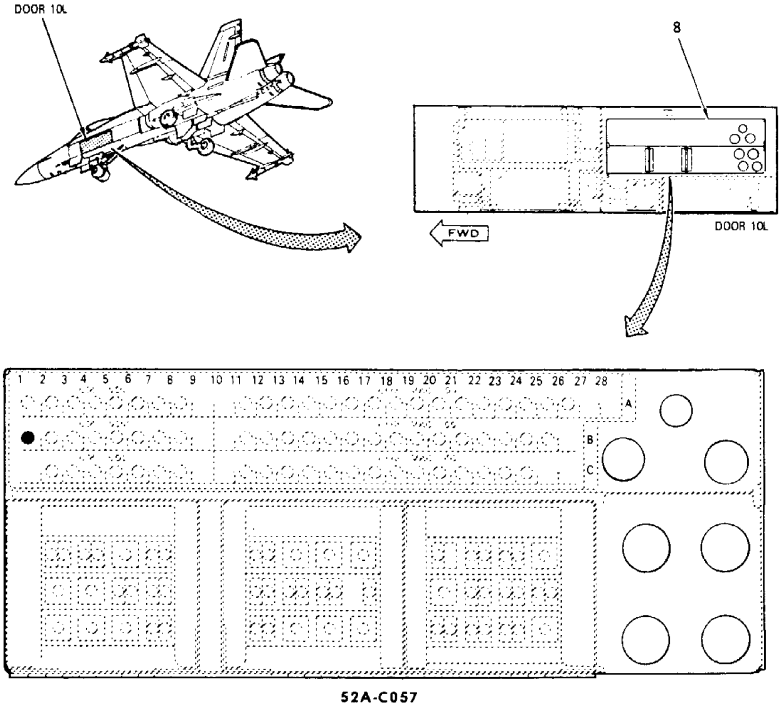


52A-D095

52A-D092	NO. 5 CIRCUIT BREAKER PANEL ASSEMBLY		
ZONE	REF DES	NOMENCLATURE	BUS
A10	5CBD064	R/FUEL S/O VALVE	ESS 24/28VDC
A11	5CBD065	CROSSFEED FUEL	ESS 24/28VDC
A12	5CBD066	L/FUEL S/O VALVE	ESS 24/28VDC

00800104

Figure 1. Engine Fuel Supply System Component Locator (Sheet 4)



52A-C057

52A-C057 NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
B1	SCBC153	FUEL PRESS	L 28VDC

00800105

Figure 1. Engine Fuel Supply System Component Locator (Sheet 5)

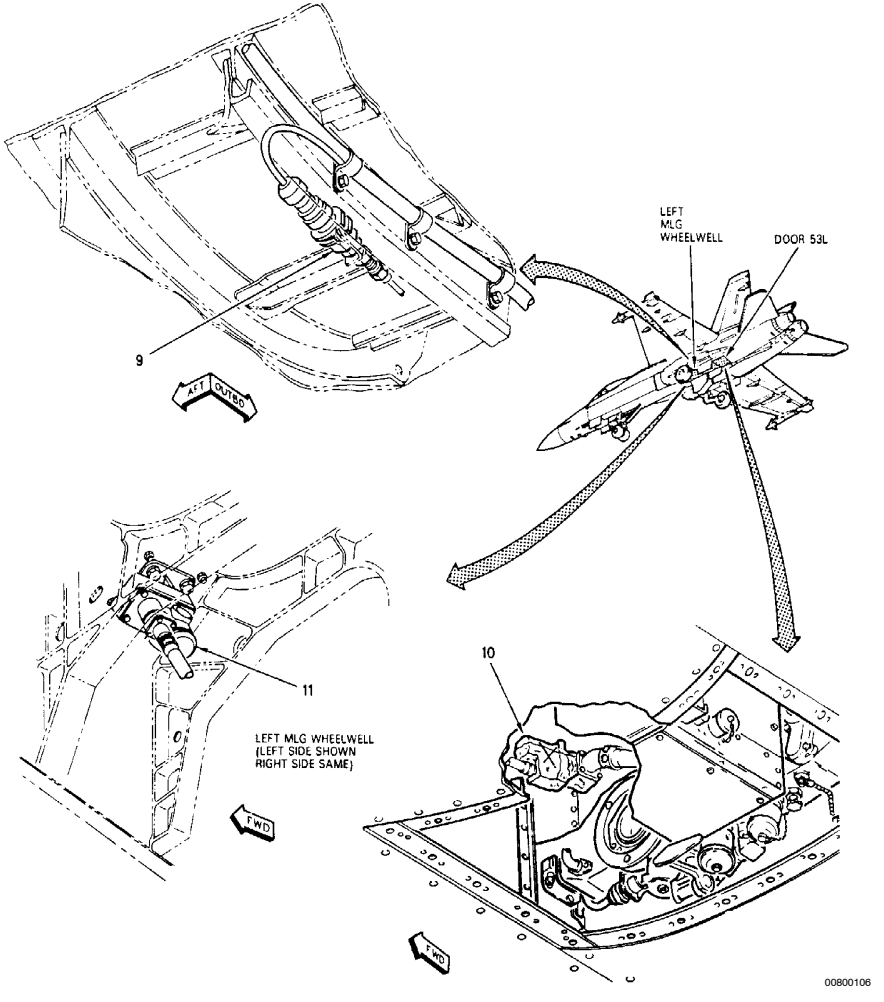


Figure 1. Engine Fuel Supply System Component Locator (Sheet 6)

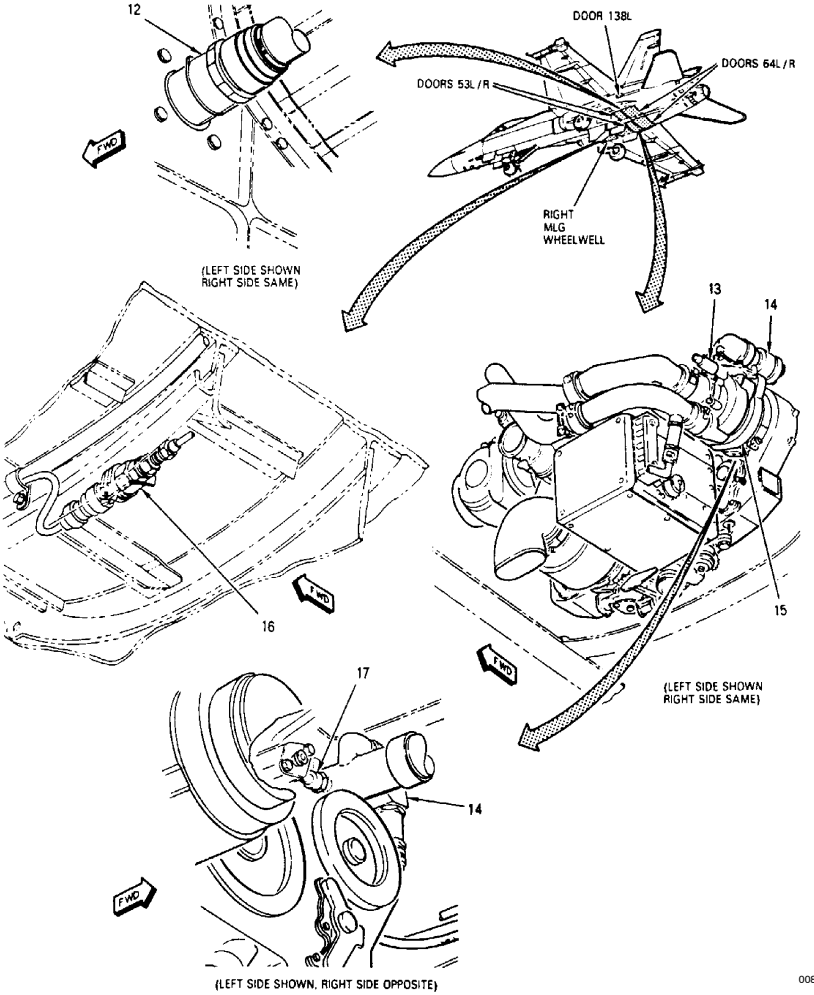


Figure 1. Engine Fuel Supply System Component Locator (Sheet 7)

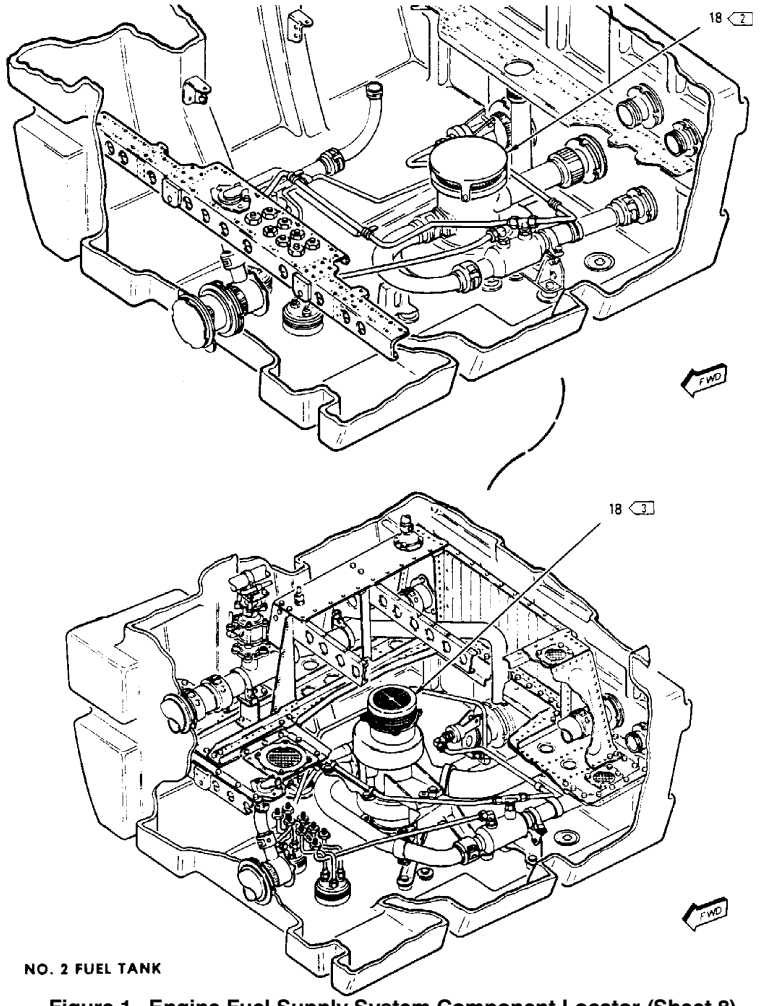
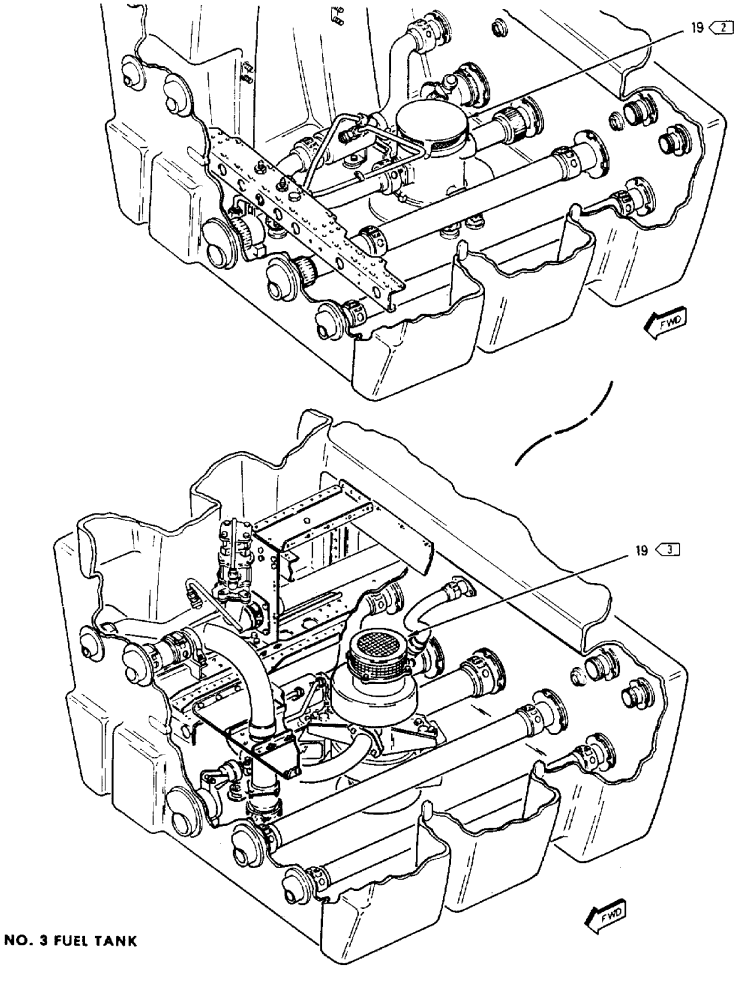
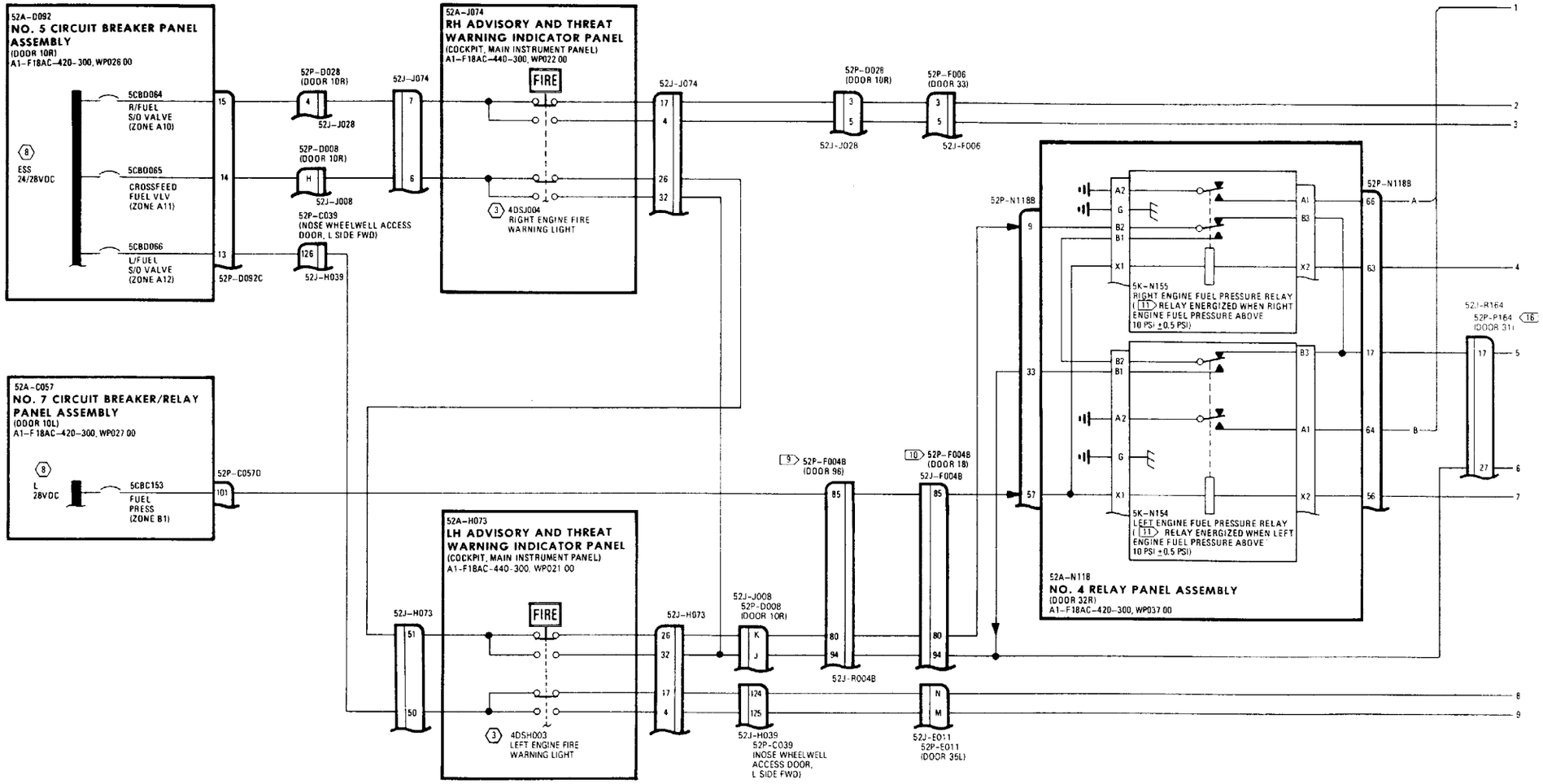


Figure 1. Engine Fuel Supply System Component Locator (Sheet 8)



00800109

Figure 1. Engine Fuel Supply System Component Locator (Sheet 9)



00800201

Figure 2. Engine Fuel Supply System Schematic (Sheet 1)

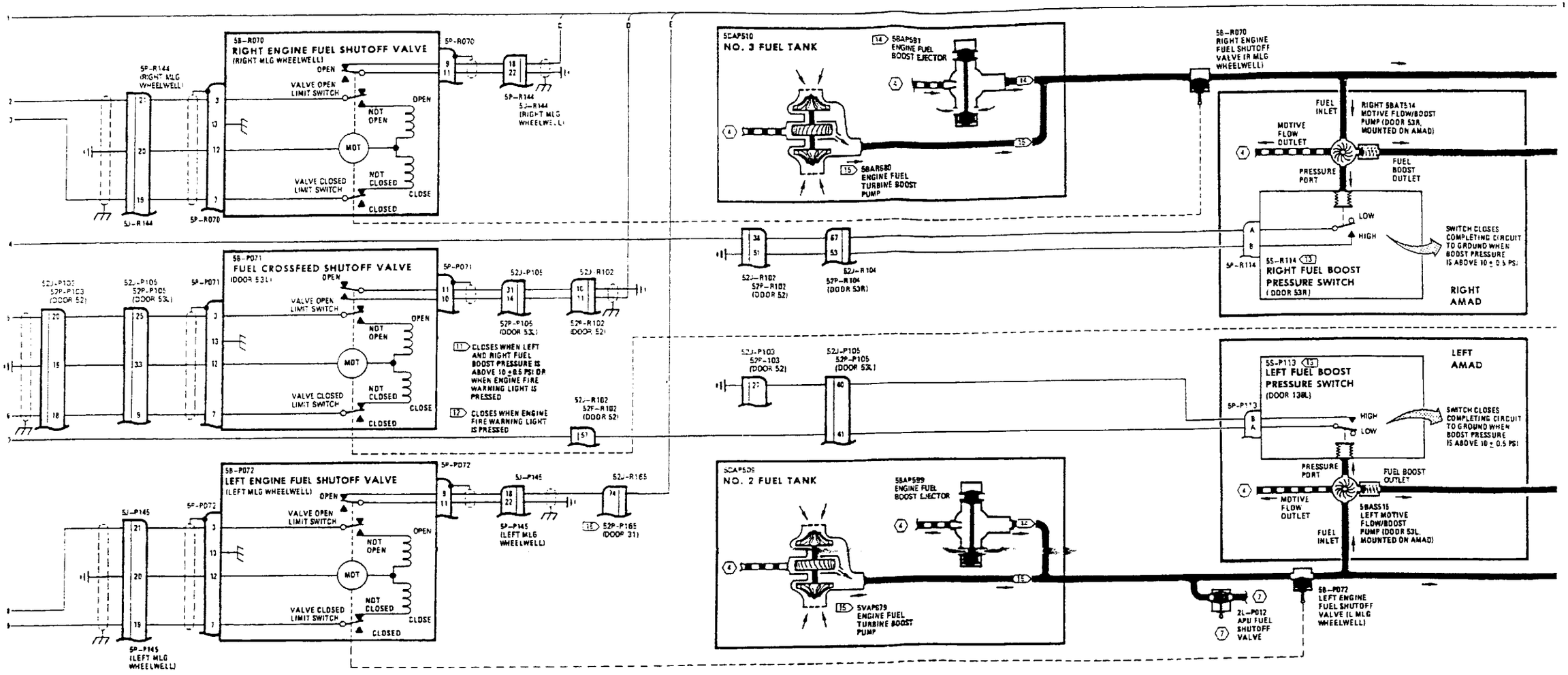


Figure 2.

Figure 2. Engine Fuel Supply System Schematic (Sheet 2)

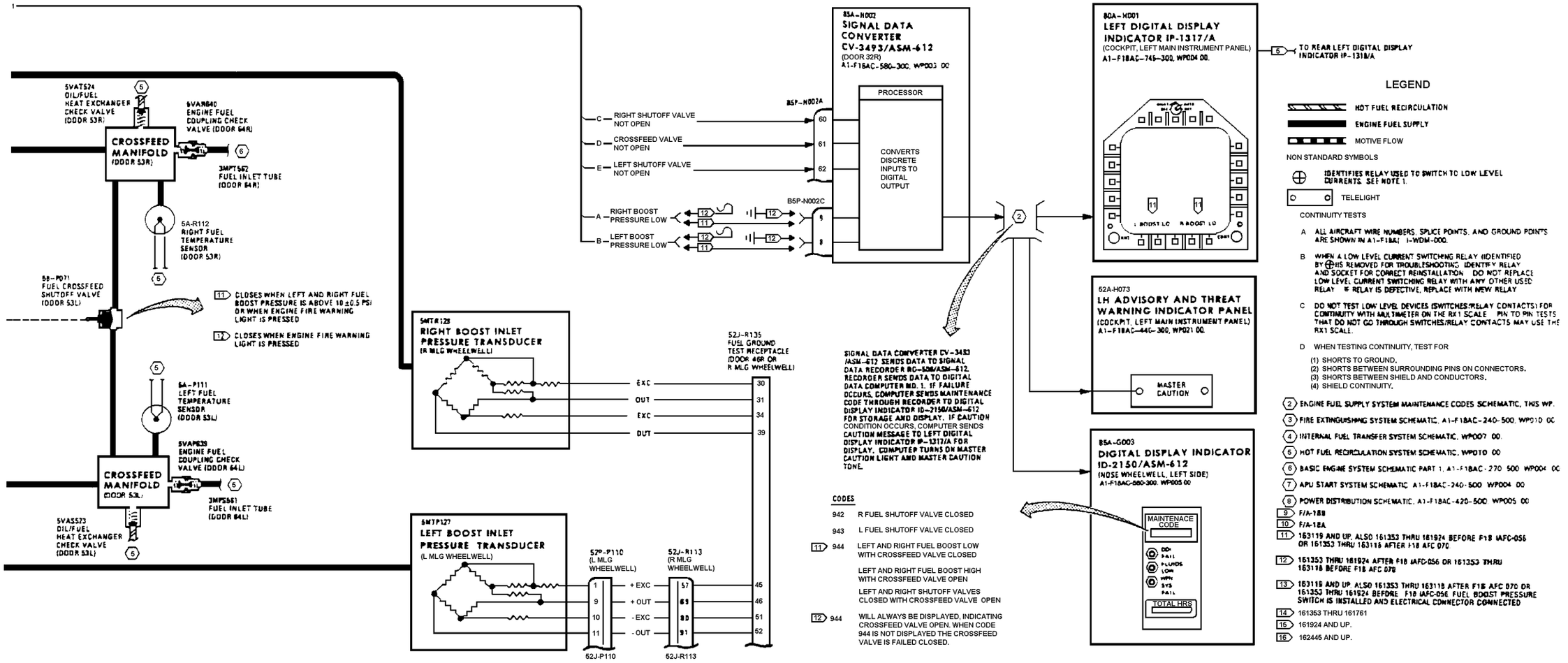


Figure 2. Engine Fuel Supply System Schematic (Sheet 3)

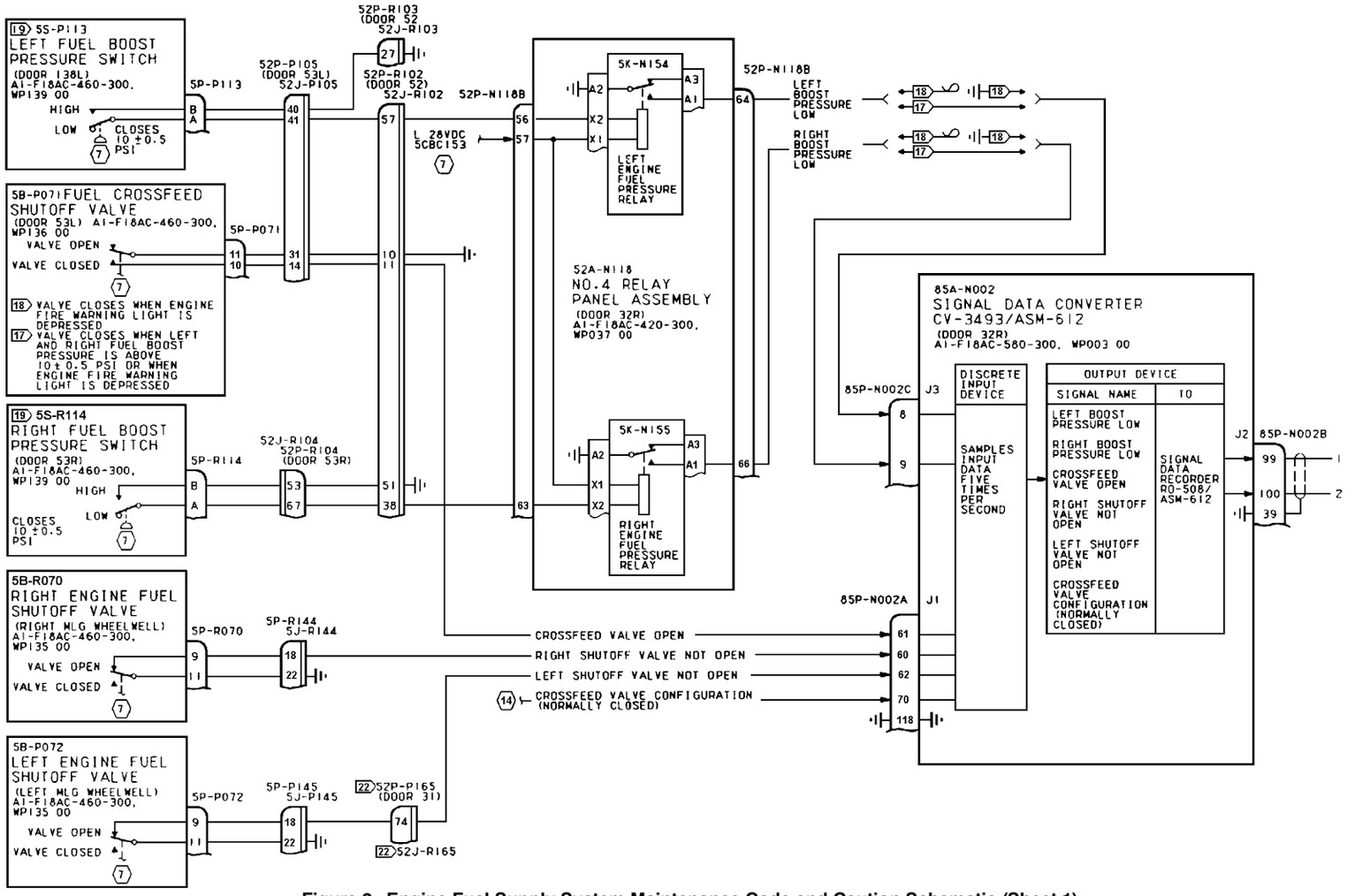
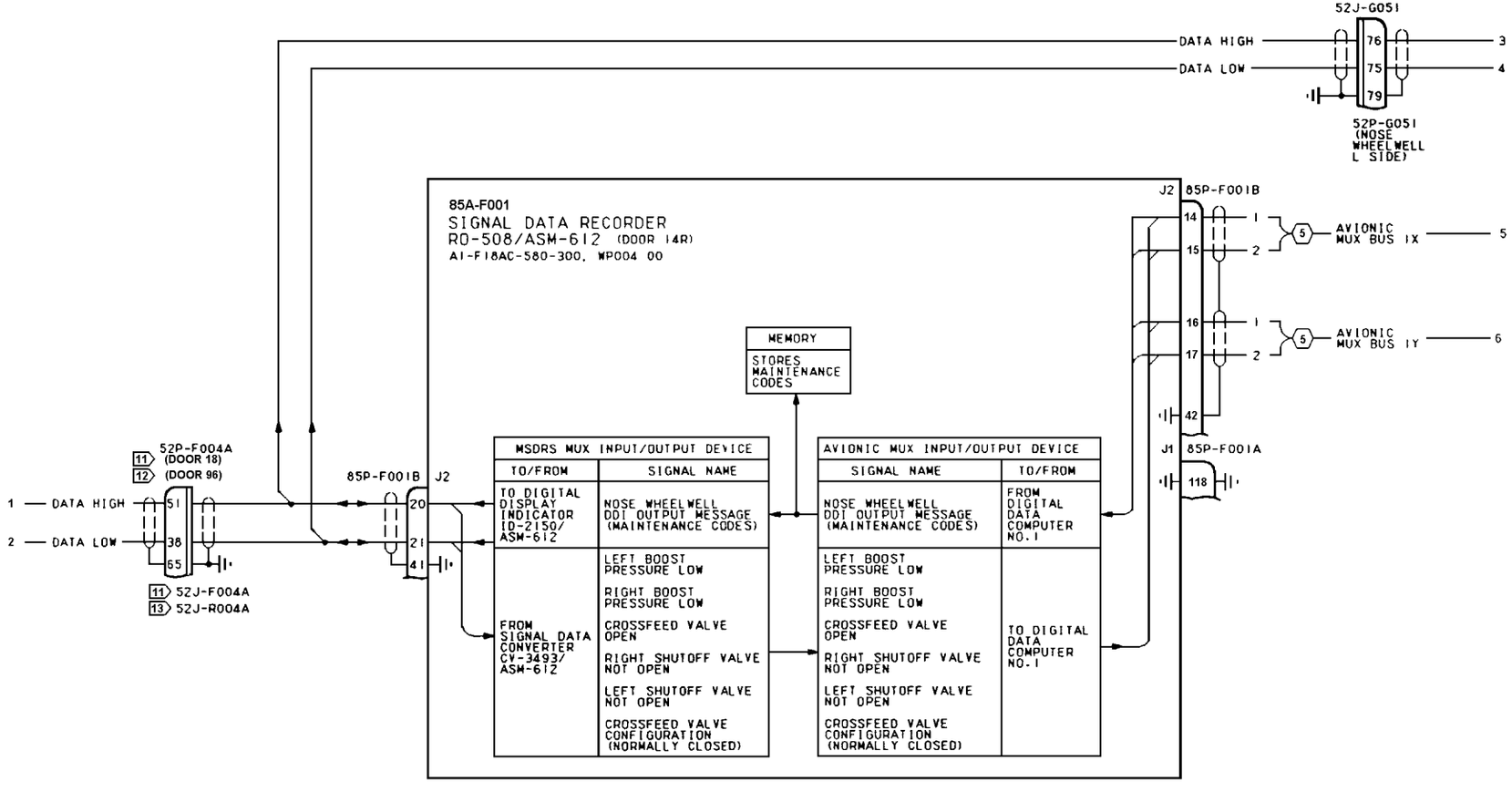


Figure 3. Engine Fuel Supply System Maintenance Code and Caution Schematic (Sheet 1)



00800302

Figure 3. Engine Fuel Supply System Maintenance Code and Caution Schematic (Sheet 2)

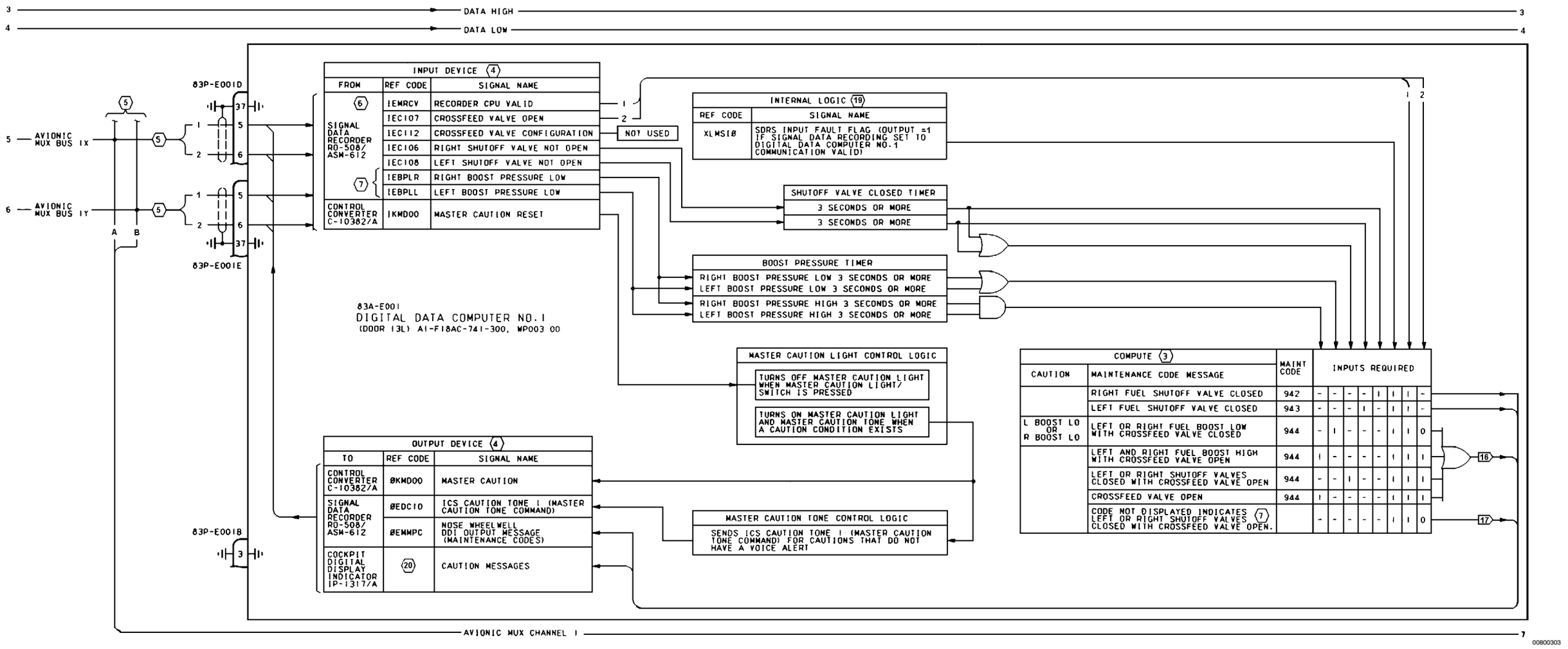


Figure 3. Engine Fuel Supply System Maintenance Code and Caution Schematic (Sheet 3)

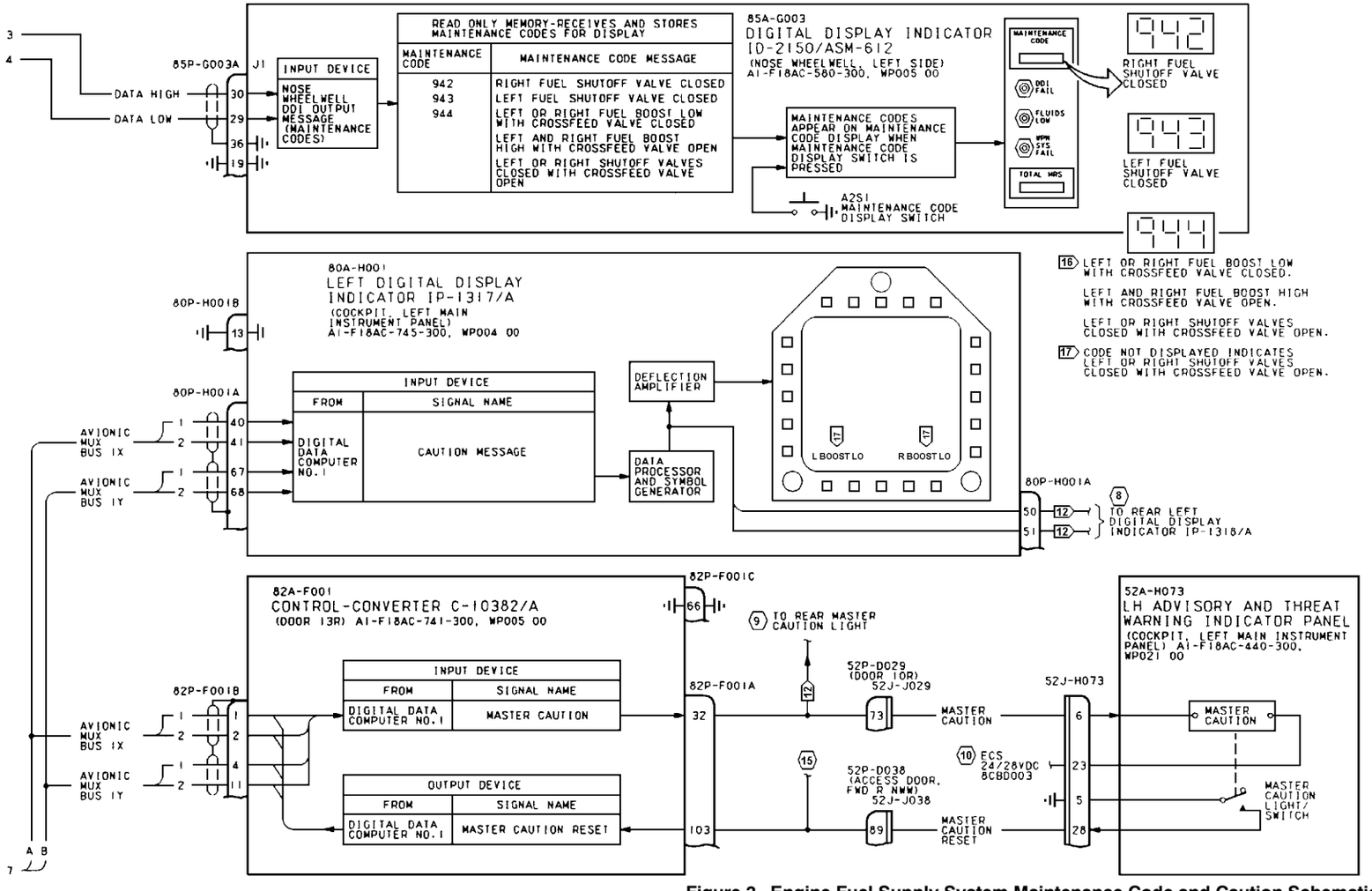


Figure 3. Engine Fuel Supply System Maintenance Code and Caution Schematic (Sheet 4)

LEGEND

1. CONTINUITY TEST:
   - A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.
   - B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.
   - C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RX1 SCALE.
   - D. WHEN TESTING CONTINUITY, TEST FOR:
     - (1) SHORTS TO GROUND.
     - (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
     - (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
     - (4) SHIELD CONTINUITY.
2. NONSTANDARD SYMBOLS:
   - TELELIGHT
   - ⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1.

(3) EXPLANATION OF MATRIX:
- A. COMPUTE COLUMN LISTS THE SIGNAL OUTPUT.
- B. INPUTS REQUIRED ARE USED TO DEVELOP THE COMPUTED SIGNAL OUTPUT.
- C. SIGNAL OUTPUT IS READ HORIZONTALLY. EACH HORIZONTAL LINE IS AN INDEPENDENT SIGNAL OUTPUT.
- D. INTERPRET MATRIX TABLE AS INDICATED:
  - (1) ONE (1) INDICATES THIS INPUT AS NAMED MUST BE THERE TO GET THE OUTPUT.
  - (2) ZERO (0) INDICATES THIS INPUT AS NAMED MUST NOT BE THERE TO GET THE OUTPUT.
  - (3) DASH (-) INDICATES THE OUTPUT DOES NOT DEPEND ON THIS INPUT.

(4) FOR LOGIC DIAGRAMS RELATING TO REF CODE, REFER TO A1-F18AC-OLD-000.

(5) AVIONIC MUX CHANNEL 1 SCHEMATIC, A1-F18AC-741-500, WP003 00.

(6) MAINTENANCE STATUS DISPLAY AND RECORDING SYSTEM BUILT-IN TEST SCHEMATIC, A1-F18AC-580-500, WP012 00.

(7) ENGINE FUEL SUPPLY SYSTEM SCHEMATIC, THIS WP.

(8) MULTIPURPOSE DISPLAY GROUP INTERCONNECT SCHEMATIC TF/A-18A, A1-F18AC-745-500, WP007 00.

(9) REAR COCKPIT CAUTION LIGHTS SCHEMATIC, A1-F18AC-440-500, WP007 00.

(10) COCKPIT CAUTION LIGHTS SCHEMATIC, A1-F18AC-440-500, WP006 00.

(11) F/A-18A.

(12) F/A-18B.

(13) F/A-18B PLUG AND JACK POSITIONS ARE REVERSED FROM POSITION SHOWN.

(14) INPUT ALWAYS OPEN TO INDICATE CROSSFEED VALVE CONFIGURATION (NORMALLY CLOSED).

(15) ELECTRONIC FLIGHT CONTROL SYSTEM CAUTION SCHEMATIC, A1-F18AC-570-500, WP024 00.

(16) 161353 THRU 161924 BEFORE F18 IAFC-056 OR 161353 THRU 163118 AFTER F18 AFC 070.

(17) 161353 THRU 161924 AFTER F18 IAFC-056 OR 161353 THRU 163118 BEFORE F18 AFC 070.

(18) 163119 AND UP; ALSO 161353 THRU 161924 BEFORE F18 IAFC-056 OR 161353 THRU 163118 AFTER F18 AFC 070, FUEL BOOST PRESSURE SWITCH IS INSTALLED AND ELECTRICAL CONNECTOR CONNECTED.

(19) REF CODES USED FOR THESE COMPUTATIONS ARE MISSION COMPUTER INTERNAL MNEMONICS. TO LOCATE INTERNAL REF CODES IN A1-F18AC-OLD 000, USE THE LOGIC DIAGRAMS FOR THE INPUT/OUTPUT REF CODES.

(20) DISPLAY REF CODES ARE NOT SHOWN. IF DISPLAY MALFUNCTION EXISTS, TRANSFER DISPLAY TO ANOTHER INDICATOR. IF MALFUNCTION EXISTS ON MORE THAN ONE INDICATOR, TROUBLESHOOT USING A1-F18AC-OLD-000 INPUT REF CODES. IF MALFUNCTION EXISTS ONLY ON ONE INDICATOR, TROUBLESHOOT BY DOING DISPLAY TEST, A1-F18AC-745-200, WP004 00 (F/A-18A) OR WP005 00 (TF/A-18A).

(21) 162445 AND UP.

00800304

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL DUMP SYSTEM

Title	WP Number
Fuel Dump System Component Locator	009 01
Fuel Dump System 161353 THRU 161761 BEFORE F18 AFC 53	009 02
Fuel Dump System Cautions and Maintenance Code Schematic	009 03
Fuel Dump System 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 53	009 04

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL DUMP SYSTEM

COMPONENT LOCATOR

Reference Material

None

Alphabetical Index

Subject	Page No.
Fuel Dump System Component Locator, Figure 1	2

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve, and Raised Inverted Baffle (ECP MDA-F/A-18-00055)	1 Aug 86	-
F18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/ Sealing of Raised Baffle in Tank 2 and 3 (ECP MDA-F18-00077)	1 Aug 86	-
F/A-18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA-F/A-18-00054C1)	1 Nov 86	-

NOMENCLATURE	INDEX NO.	REF DES
CONTROL – CONVERTER C-10382/A	7	82A-F001
DIGITAL DATA COMPUTER NO. 1	10	83A-E001
DIGITAL DISPLAY INDICATOR ID-2150/ASM-612	9	85A-G003
DUMP LINE AUTOMATIC DRAIN VALVE	15	5VAS518
FUEL DUMP VALVE	16	5B-P069
FUEL SYSTEM CONTROL PANEL DUMP SWITCH	3	5A-H027 5S-H067
FUEL QTY INDICATOR	4	5A-H013
FUEL QUANTITY GAGING INTERMEDIATE DEVICE	5	5A-F014
LEFT DIGITAL DISPLAY INDICATOR IP-1317( )	2	80A-H001
LH ADVISORY AND THREAT WARNING INDICATOR PANEL	1	52A-H073
NO. 3 RELAY PANEL ASSEMBLY	11	52A-E059
NO. 5 CIRCUIT BREAKER PANEL ASSEMBLY	8	52A-D092
NO. 7 CIRCUIT BREAKER/RELAY PANEL	13	52A-C057
NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY	12	52A-C159
SIGNAL DATA CONVERTER CV-3493/ASM-612	14	85A-N002
SIGNAL DATA RECORDER RO-508/ASM-612	6	85A-F001

LEGEND

1. AIRCRAFT CONNECTOR LOCATIONS ARE SHOWN IN A1-F18A( )-WDM-000.

<2> 161353 THRU 161528 BEFORE F18 AFC 41.

<3> 161702 AND UP; ALSO 161353 THRU 161528 AFTER F18 AFC 41.

<4> 161353 THRU 161761 BEFORE F18 AFC 053.

<5> 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 053.

09010101

Figure 1. Fuel Dump System Component Locator (Sheet 1)

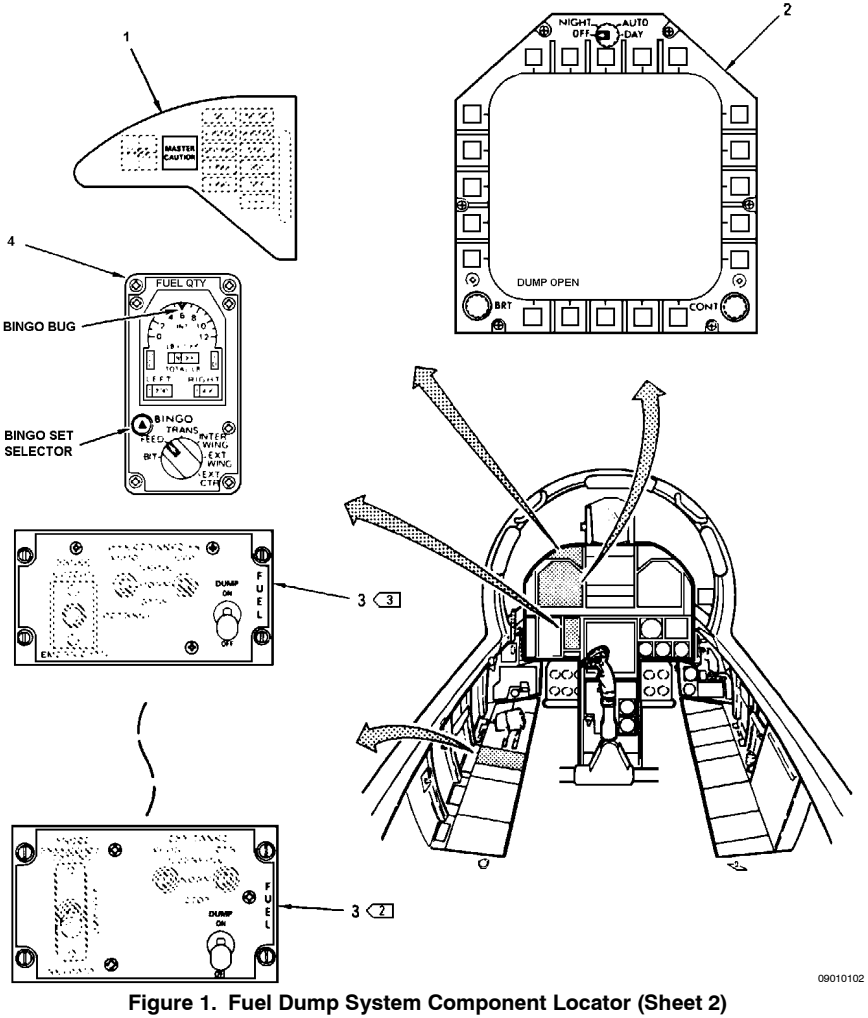
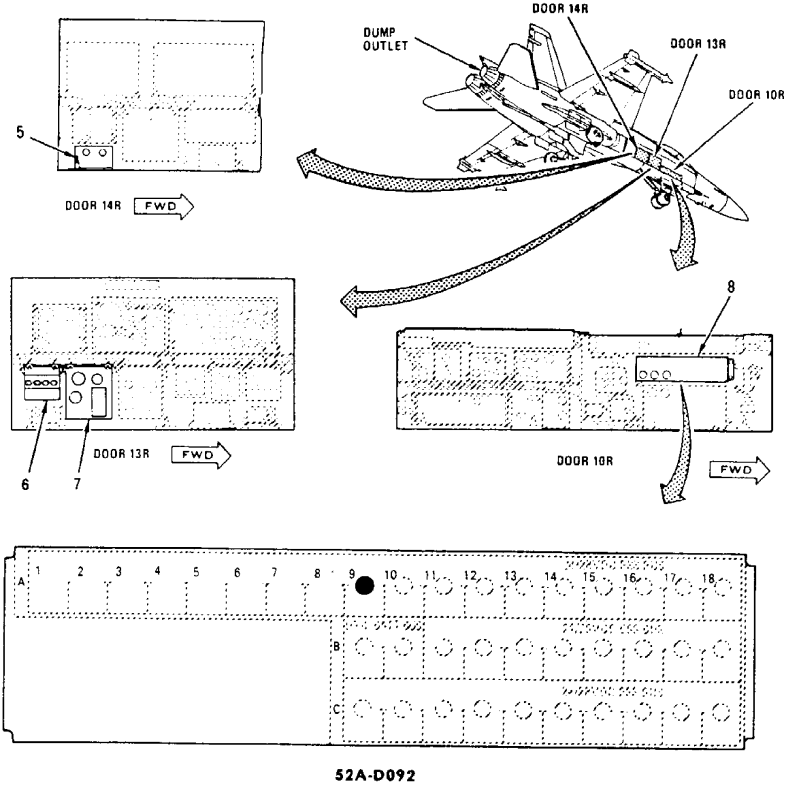


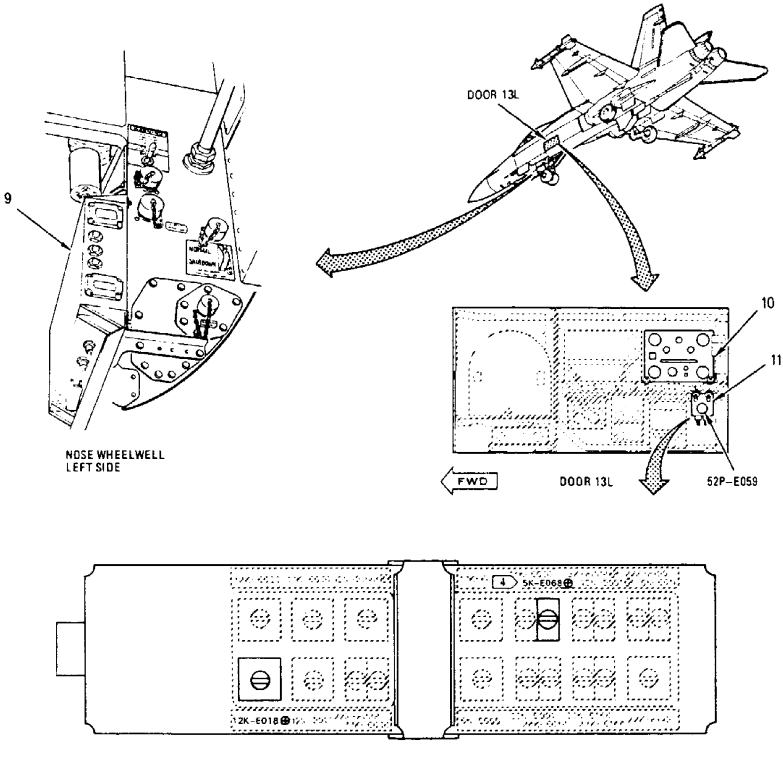
Figure 1. Fuel Dump System Component Locator (Sheet 2)



52A-D092	NO. 5 CIRCUIT BREAKER PANEL ASSEMBLY		
ZONE	REF DES	NOMENCLATURE	BUS
A9	5CBD063	FUEL DUMP	ESS 24/28VDC

09010103

Figure 1. Fuel Dump System Component Locator (Sheet 3)

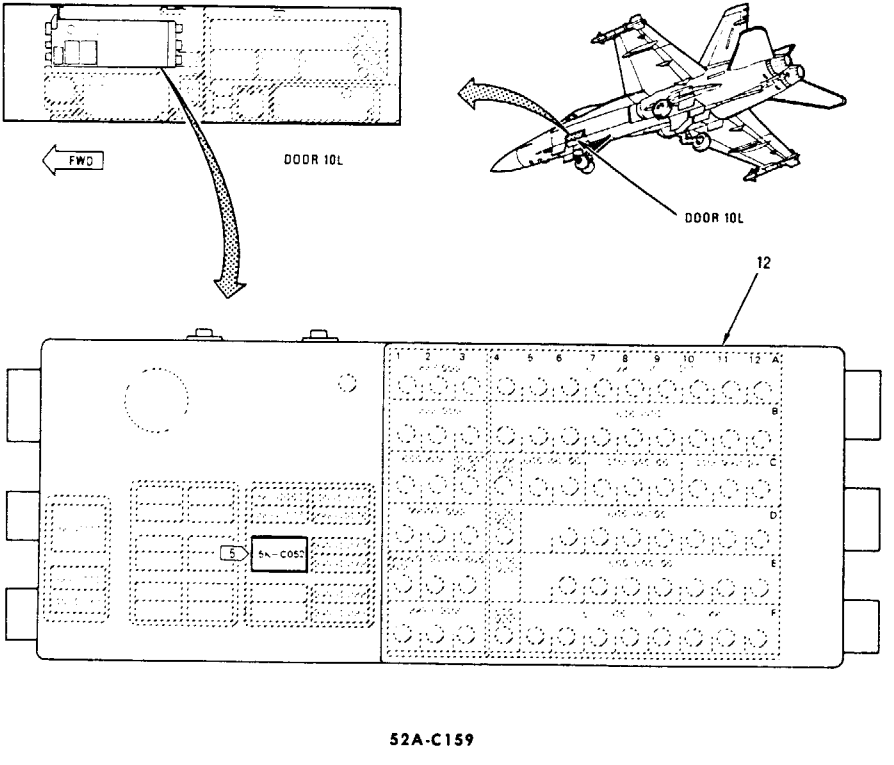


52A-E059

52A-E059		NO. 3 RELAY PANEL ASSEMBLY	
ZONE	REF DES	NOMENCLATURE	BUS
	4 5K-E068	BINGO FUEL RELAY	
	12K-E018	LMG WOW RELAY NO. 2	

09010104

Figure 1. Fuel Dump System Component Locator (Sheet 4)

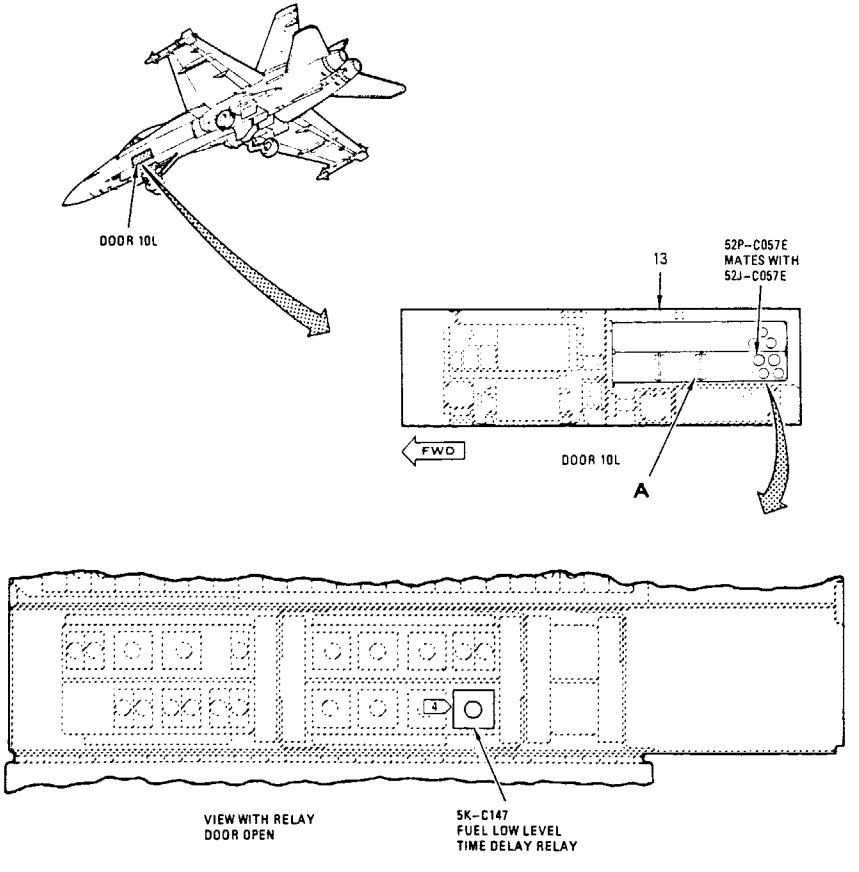


52A-C159

52A-C159 NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
	(5) 5K-C052	FUEL LOW LEVEL RELAY NO. 2	

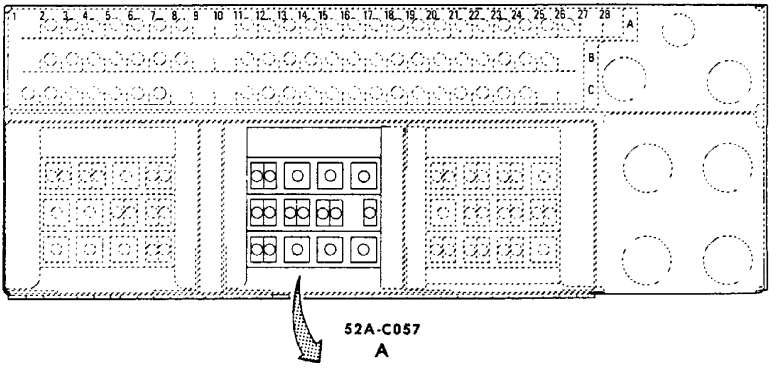
09010105

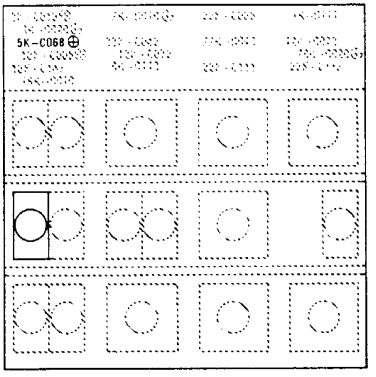
Figure 1. Fuel Dump System Component Locator (Sheet 5)



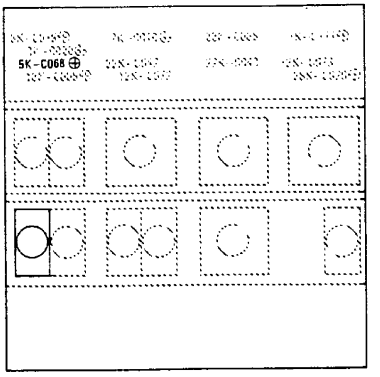
09010106

Figure 1. Fuel Dump System Component Locator (Sheet 6)





F/A-18B



F/A-18A

52A-C057 NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
	4 5K-C147	FUEL LOW LEVEL TIME DELAY RELAY	
	5 5K-C068	BINGO FUEL RELAY	

09010107

Figure 1. Fuel Dump System Component Locator (Sheet 7)

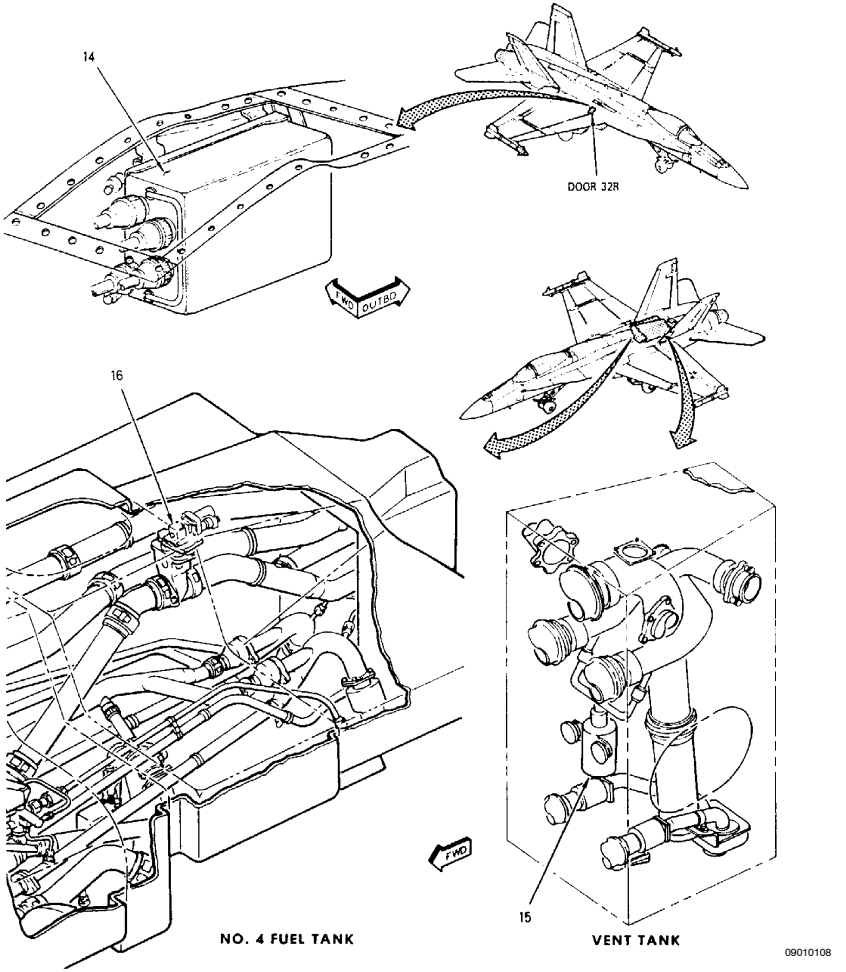


Figure 1. Fuel Dump System Component Locator (Sheet 8)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL DUMP SYSTEM

EFFECTIVITY: 161353 THRU 161761 BEFORE F/A-18 AFC 53

Reference Material

None

Alphabetical Index

Subject	Page No.
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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 48	-	Automatic AC Bus Isolation, Incorporation of (ECP MDA-F/A-18-00121)	15 Jan 88	-

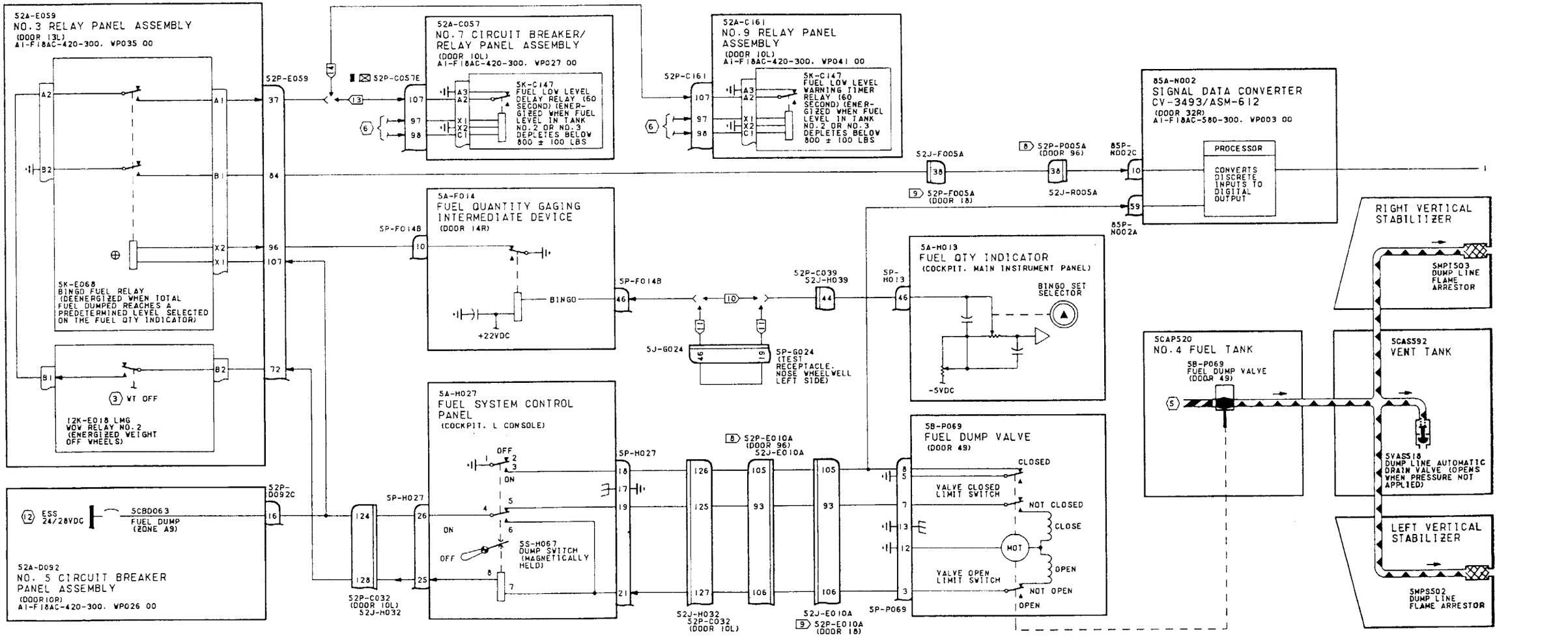


Figure 1. Fuel Dump System Schematic (Sheet 1)

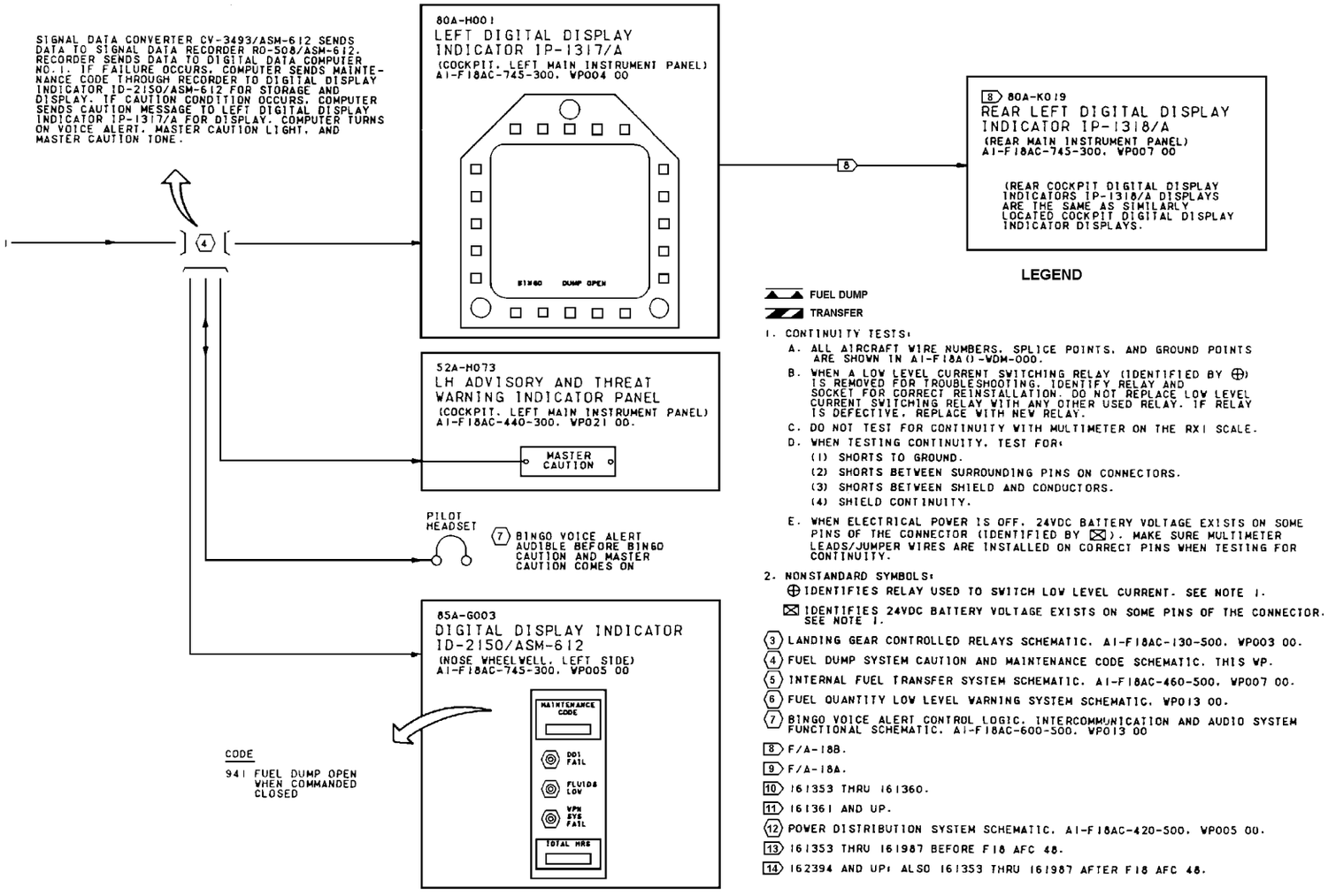


Figure 1. Fuel Dump System Schematic (Sheet 2)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL DUMP SYSTEM

CAUTIONS AND MAINTENANCE CODES SCHEMATIC

Reference Material

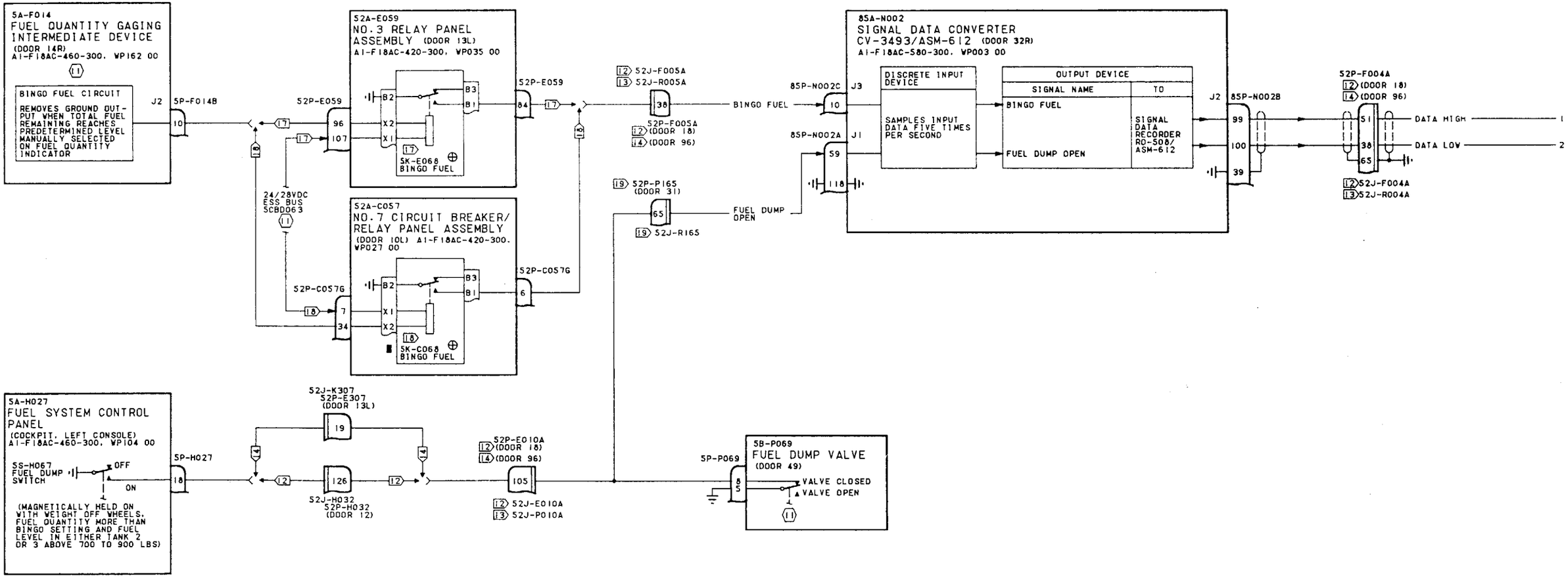
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Fuel Dump System Cautions and Maintenance Codes Schematic, Figure 1	3

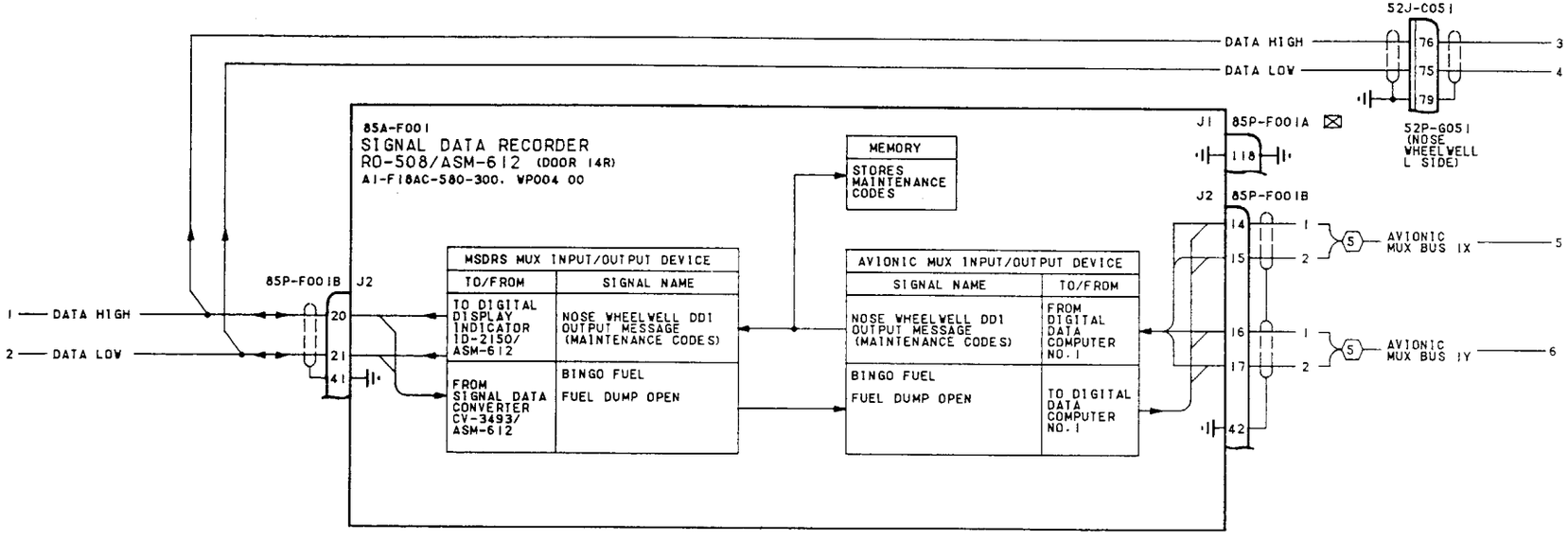
Record of Applicable Technical Directives

None



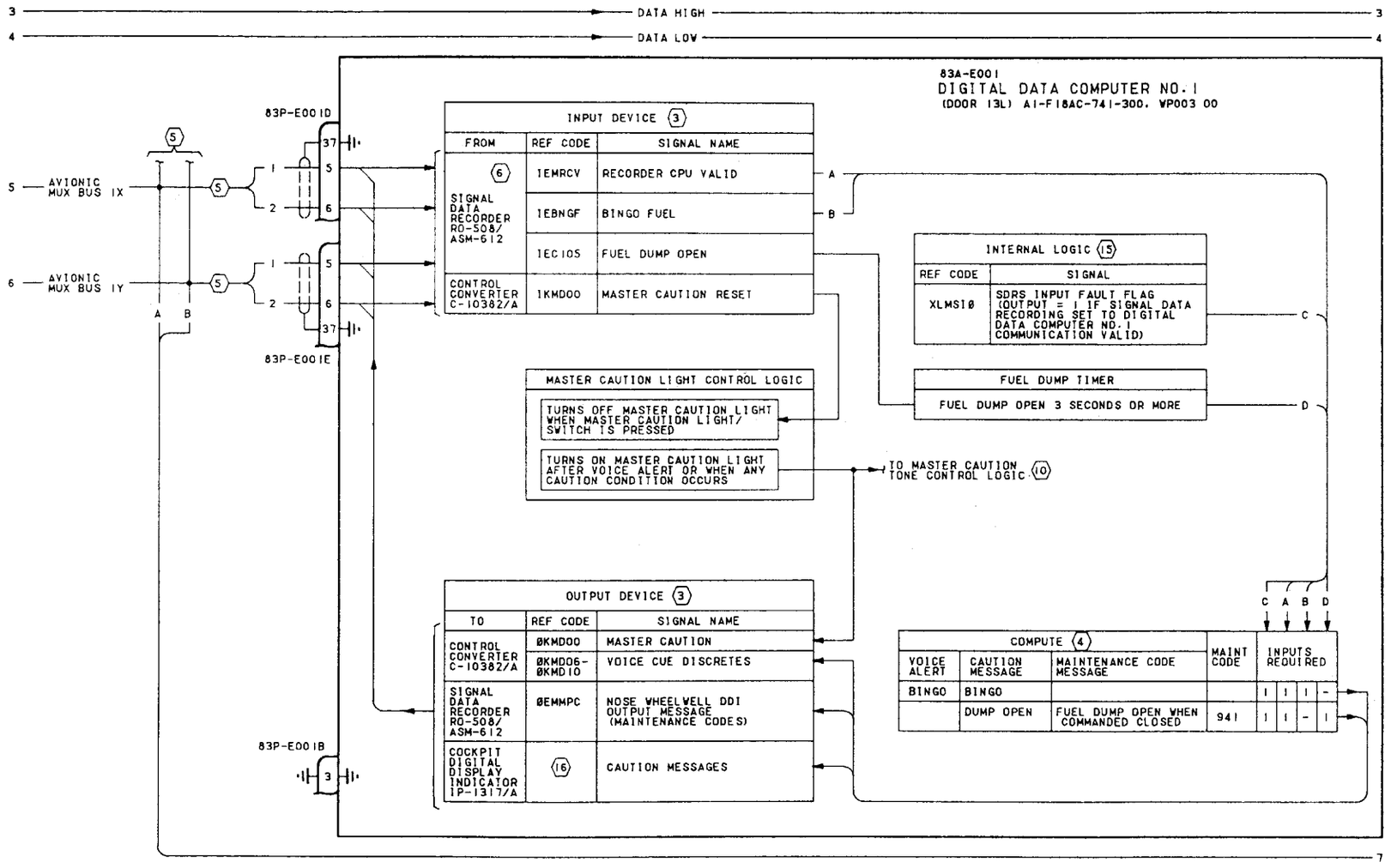
09030101

Figure 1. Fuel Dump System Cautions and Maintenance Codes Schematic (Sheet 1)



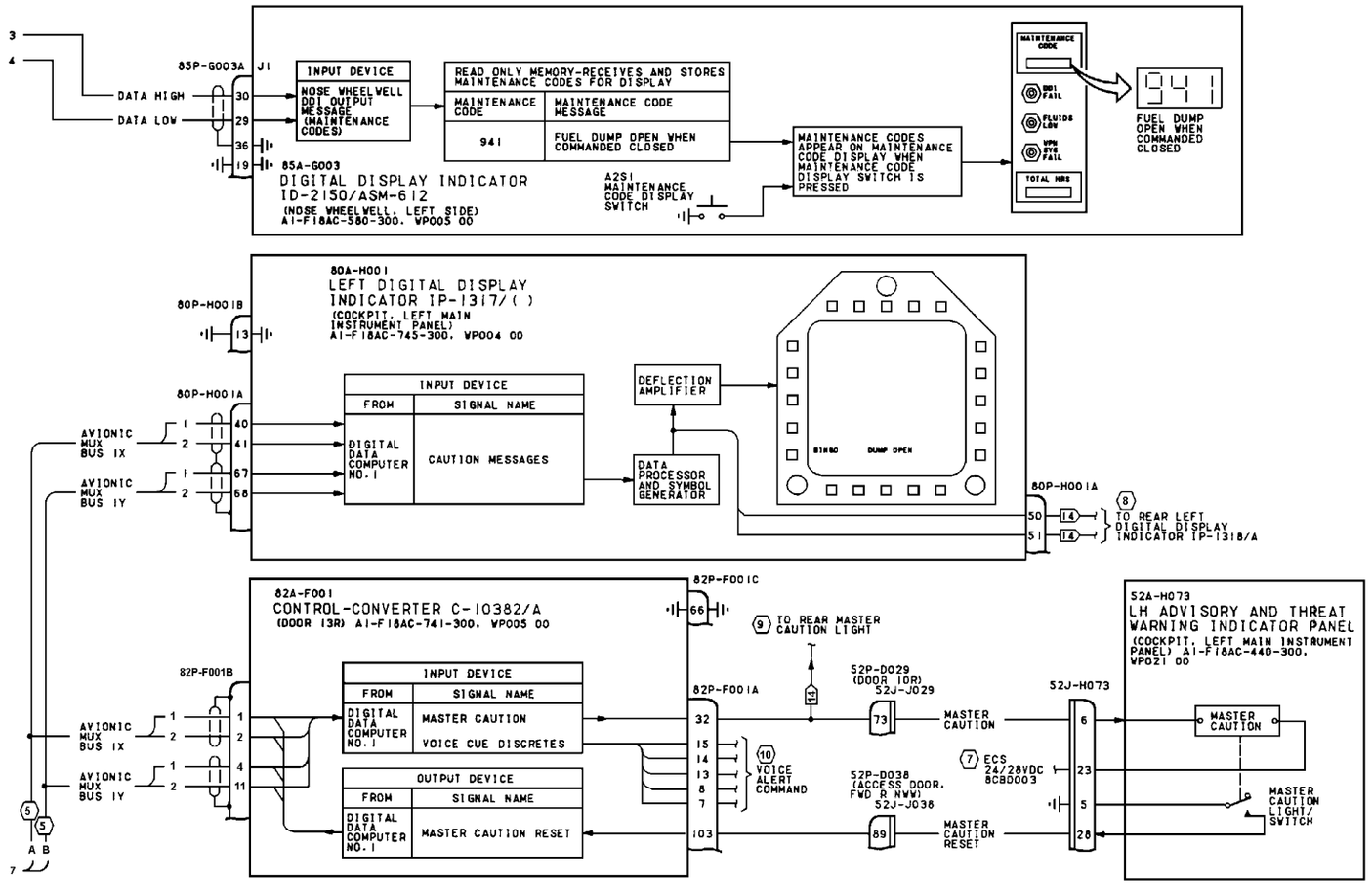
09030102

Figure 1. Fuel Dump System Cautions and Maintenance Codes Schematic (Sheet 2)



09030103

Figure 1. Fuel Dump System Cautions and Maintenance Codes Schematic (Sheet 3)



LEGEND

1. CONTINUITY TESTS:
   - A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.
   - B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR PROPER REINSTALLATION. DO NOT SUBSTITUTE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.
   - C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RX1 SCALE.
   - D. WHEN TESTING CONTINUITY, TEST FOR:
     - (1) SHORTS TO GROUND.
     - (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
     - (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
     - (4) SHIELD CONTINUITY.
   - E. WHEN ELECTRICAL POWER IS OFF, 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS ON CONNECTOR (IDENTIFIED BY ⊠). MAKE SURE MULTIMETER LEADS/JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY.
2. NONSTANDARD SYMBOL
   - ⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1.
   - TELELIGHT
   - ⊠ IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR. SEE NOTE 1.

(3) FOR LOGIC DIAGRAMS RELATING TO REF CODE, REFER TO A1-F18AC-OLD-000.

(4) EXPLANATION OF MATRIX
- A. COMPUTE COLUMN LISTS THE SIGNAL OUTPUT.
- B. INPUTS REQUIRED ARE USED TO DEVELOP THE COMPUTED SIGNAL OUTPUT.
- C. SIGNAL OUTPUT IS READ HORIZONTALLY, EACH HORIZONTAL LINE IS AN INDEPENDENT SIGNAL OUTPUT.
- D. INTERPRET MATRIX TABLE AS INDICATED:
  - (1) ONE (1) INDICATES THIS INPUT AS NAMED MUST BE THERE TO GET THE OUTPUT.
  - (2) ZERO (0) INDICATES THIS INPUT AS NAMED MUST NOT BE THERE TO GET THE OUTPUT.
  - (3) DASH (-) INDICATES THE OUTPUT DOES NOT DEPEND ON THIS INPUT.

(5) AVIONIC MUX CHANNEL I SCHEMATIC, A1-F18AC-741-500, WP004 00.

(6) MAINTENANCE STATUS DISPLAY AND RECORDING SYSTEM BUILT-IN TEST SCHEMATIC, A1-F18AC-580-500, WP012 00.

(7) COCKPIT CAUTION LIGHTS SCHEMATIC, A1-F18AC-440-500, WP006 00.

(8) MULTIPURPOSE DISPLAY GROUP INTERCONNECT SCHEMATIC TF/A-18A, A1-F18AC-745-500, WP003 00.

(9) REAR COCKPIT CAUTION LIGHTS SCHEMATIC A1-F18AC-440-500, WP007 00.

(10) INTERCOMMUNICATION AND AUDIO SYSTEM FUNCTIONAL SCHEMATIC, A1-F18AC-600-500, WP013 00.

(11) FUEL DUMP SYSTEM SCHEMATIC, THIS WP.

(12) F/A-18A.

(13) F/A-18B PLUG JACK POSITIONS ARE REVERSED FROM POSITION SHOWN.

(14) F/A-18B.

(15) REF CODES USED FOR THESE COMPUTATIONS ARE MISSION COMPUTER INTERNAL MNEMONICS. TO LOCATE INTERNAL REF CODES IN A1-F18AC-OLD-000, USE THE LOGIC DIAGRAMS FOR THE INPUT/OUTPUT REF CODES.

(16) DISPLAY REF CODES ARE NOT SHOWN. IF DISPLAY MALFUNCTION EXISTS, TRANSFER DISPLAY TO ANOTHER INDICATOR. IF MALFUNCTION EXISTS ON MORE THAN ONE INDICATOR, TROUBLESHOOT USING A1-F18AC-OLD-000 INPUT REF CODES. IF MALFUNCTION EXISTS ONLY ON ONE INDICATOR, TROUBLESHOOT BY DOING DISPLAY TEST, A1-F18AC-745-200, WP004 00 (F/A-18A) OR WP005 00 (TF/A-18A).

(17) 161353 THRU 161761.

(18) 161924 AND UP.

(19) 162445 AND UP.

09030104

Figure 1. Fuel Dump System Cautions and Maintenance Codes Schematic (Sheet 4)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL DUMP SYSTEM

EFFECTIVITY: 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 53

Reference Material

None

Alphabetical Index

Subject	Page No.
Fuel Dump System Schematic, Figure 1	3

Record of Applicable Technical Directives

Type/ Number	Date	TItle and ECP No.	Date Incorp.	Remarks
F18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve, and Raised Inverted Baffle (ECP 00055)	1 Aug 86	-

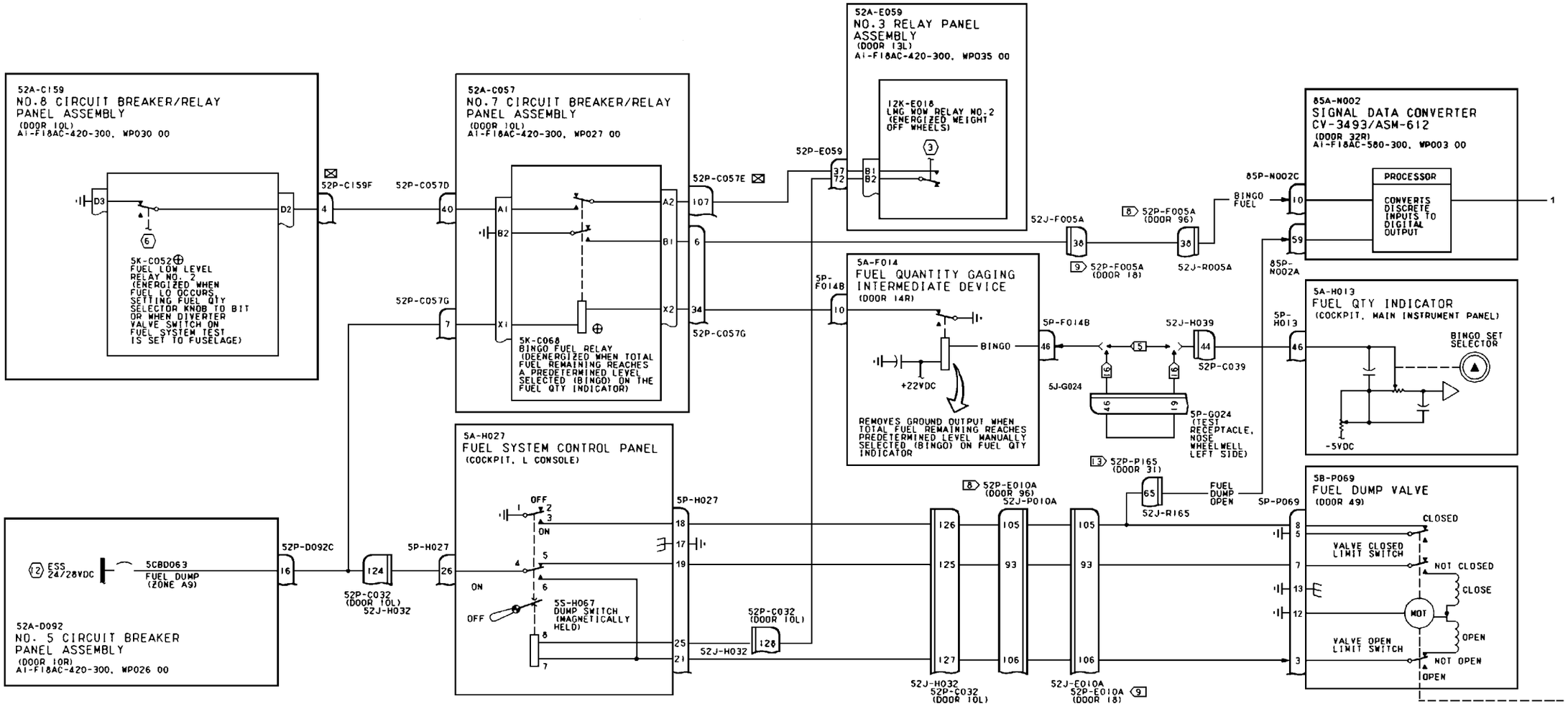


Figure 1. Fuel Dump System Schematic (Sheet 1)

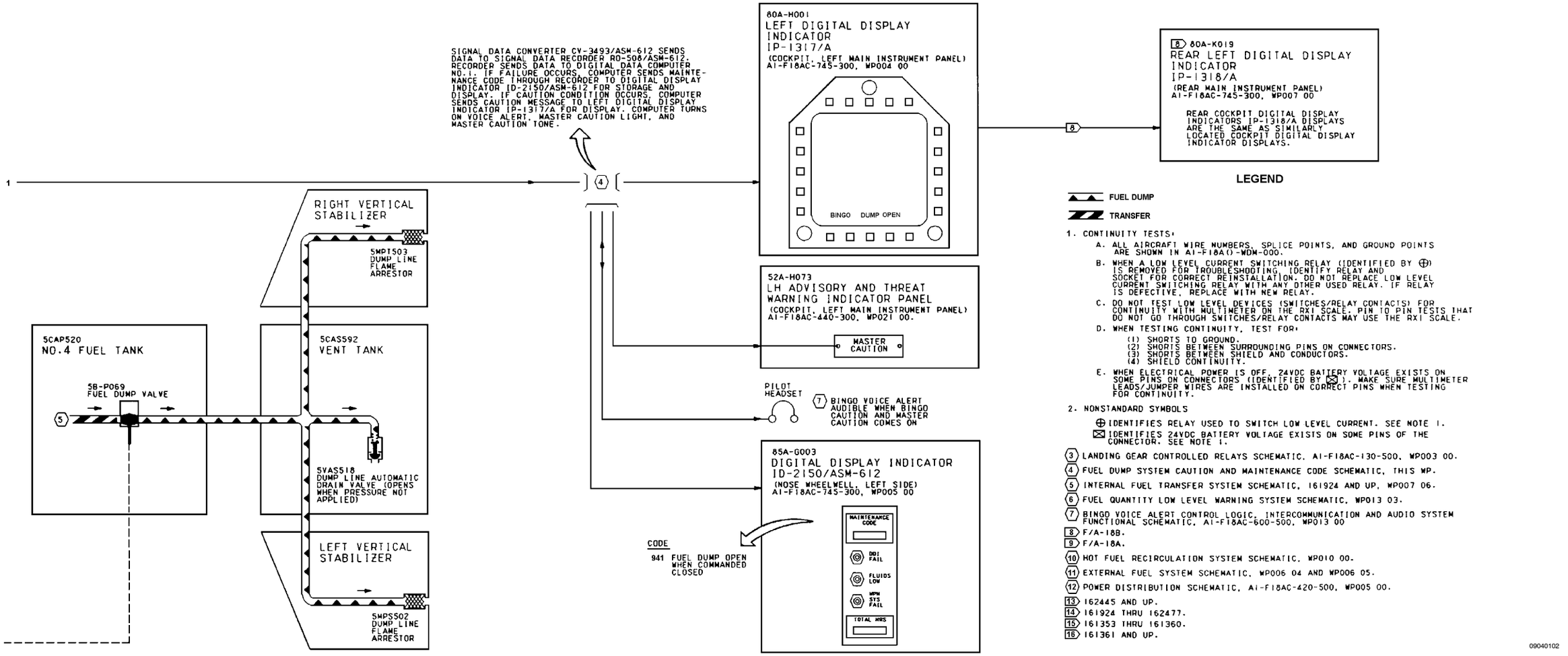


Figure 1. Fuel Dump System Schematic (Sheet 2)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

HOT FUEL RECIRCULATION SYSTEM

Reference Material

None

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Hot Fuel Recirculation System Component Locator, Figure 1	2
Hot Fuel Recirculation System Maintenance Code and Caution Schematic, Figure 3	17
Hot Fuel Recirculation System Schematic, Figure 2	13

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 18	-	Incorporation of Fuel Turbine Boost Pump/ Sealing of Raised Baffle in Tank 2 and 3 (ECP MDA-F/A-18-00077)	1 Aug 86	-
F/A-18 AFC 21	-	Addition of Fuel/ Air Heat Exchanger (ECP MDA-F/A-18-00033)	1 Aug 86	-
F/A-18 AFC 70	-	Incorporation of Motive Flow Boost Pump Pressure Switch (ECP MDA-F/A-18-00158R2)	1 Aug 86	-
F/A-18 IAFC 56	-	Fuel System Components Replacement and System Inspections (ECP MDA-F/A-18-00158R1 AND -00160)	1 Aug 86	-

NOMENCLATURE	INDEX NO.	REF DES
AMAD OIL/FUEL HEAT EXCHANGER	14	
LEFT		3HPS530
RIGHT		3HPT532
CONTROL - CONVERTER C-10382/A	19	82A-F001
CROSSFEED MANIFOLD	12	
DIGITAL DATA COMPUTER NO. 1	20	83A-E001
EXT LT CONTROL PANEL ASSEMBLY	1	52A-H091
INTR WING SWITCH		5S-H026
5 FUEL/AIR HEAT EXCHANGER	18	
LEFT		5MPP670
RIGHT		5MPR671
FUEL DIVERTER VALVE	7	
LEFT		5L-R118
RIGHT		5L-R119
FUEL/OIL HEAT EXCHANGER CHECK VALVE	13	
LEFT		5VAS523
RIGHT		5VAT524
FUEL TEMPERATURE SENSOR	11	
LEFT		5TCP111
RIGHT		5TCR112
HEAT EXCHANGERS WASH FILTER (INTERGRAL PART OF TUBE)	16	
LEFT		5FAP647
RIGHT		5FAR648
HOT FUEL RECIRCULATION CHECK VALVE	8	
LEFT		5VAP585
RIGHT		5VAR584
HOT FUEL RECIRCULATION RESTRICTOR (INTEGRAL PART OF TUBE)	15	
LEFT		5RAP656
RIGHT		5RAR656
4 HOT FUEL RECIRCULATION WING RESTRICTOR	17	
LEFT		5RAP657
RIGHT		5RAR658
HYDRAULIC OIL/FUEL HEAT EXCHANGER	9	
LEFT		10HPP518
RIGHT		10HPR519
LEFT HAND ADVISORY AND THREAT WARNING INDICATOR PANEL	2	52A-H073
LEFT DIGITAL DISPLAY INDICATOR IP-1317/A	3	80A-H001
MOTIVE FLOW BOOST PUMP	10	
LEFT		5BAS515
RIGHT		5VAT514
NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY	6	52A-C159
SIGNAL DATA CONVERTER CV-3494/ASM-612	4	85A-N002
SIGNAL DATA RECORDER RO-508/ASM-612	5	85A-F001

LEGEND

1. AIRCRAFT CONNECTOR LOCATIONS ARE SHOWN IN A1-F18A( )-WDM-000.

2 161353 THRU 161519.

3 161520 AND UP.

4 161353 THRU 161519 BEFORE F18 AFC 18.

5 161520 AND UP; ALSO 161353 THRU 161519 AFTER AFC 21.

01000101

Figure 1. Hot Fuel Recirculation System Component Locator (Sheet 1)

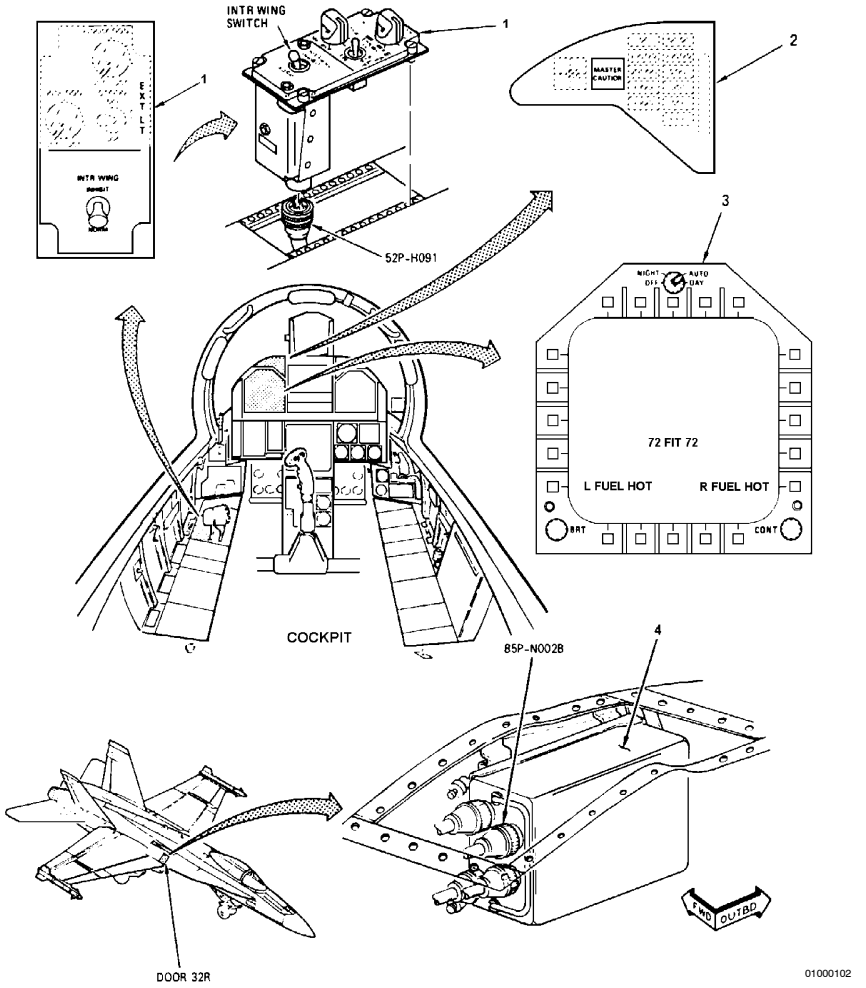
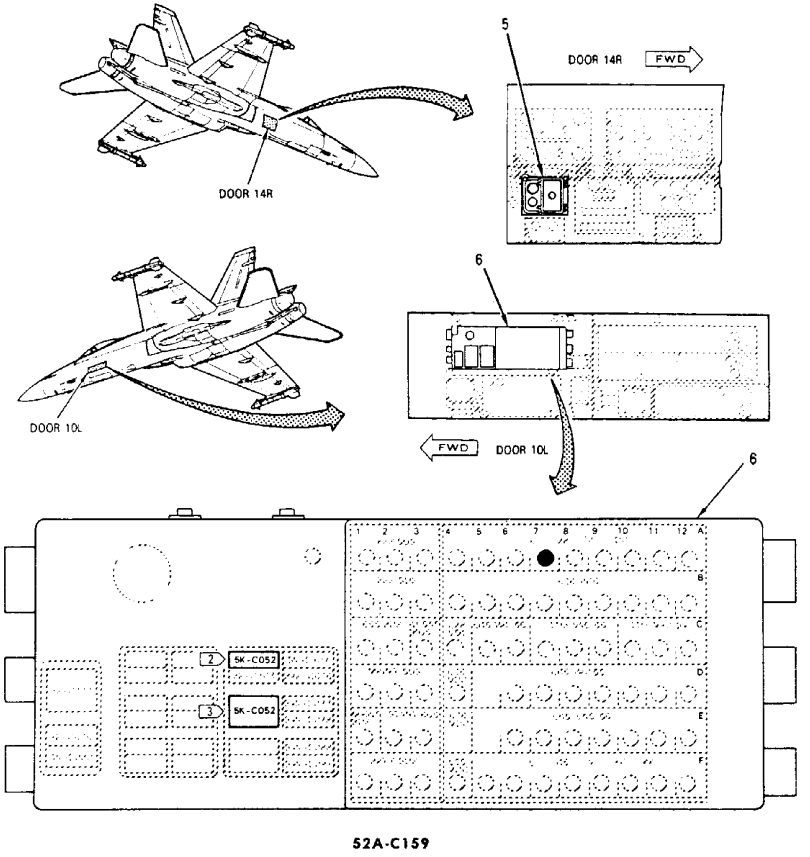


Figure 1. Hot Fuel Recirculation System Component Locator (Sheet 2)



52A-C159

52A-C159 NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
A7	5CBC115 5K--C052	WING FOLD FUEL LOW LEVEL RELAY NO. 2	L28VDC

01000103

Figure 1. Hot Fuel Recirculation System Component Locator (Sheet 3)

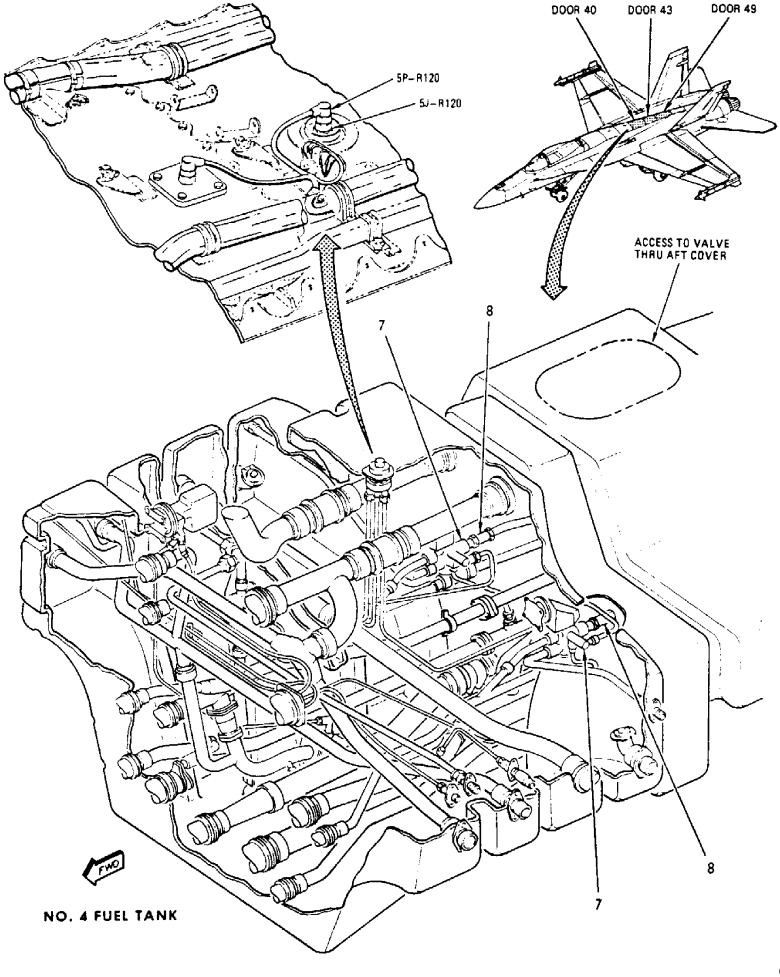


Figure 1. Hot Fuel Recirculation System Component Locator (Sheet 4)

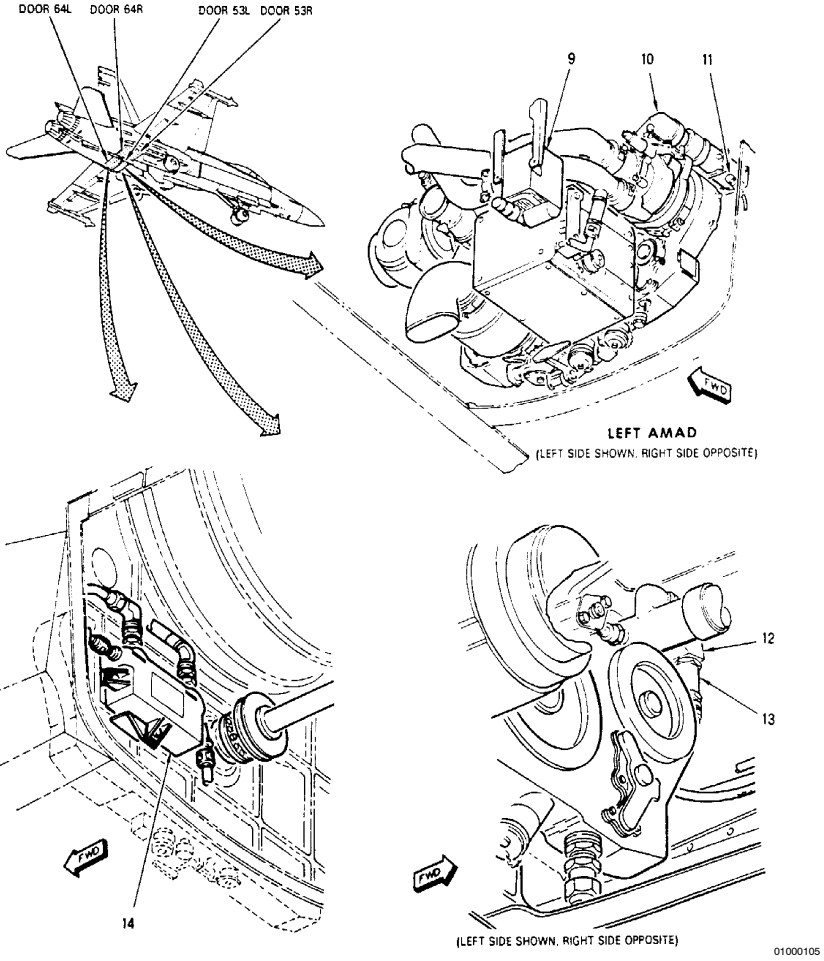


Figure 1. Hot Fuel Recirculation System Component Locator (Sheet 5)

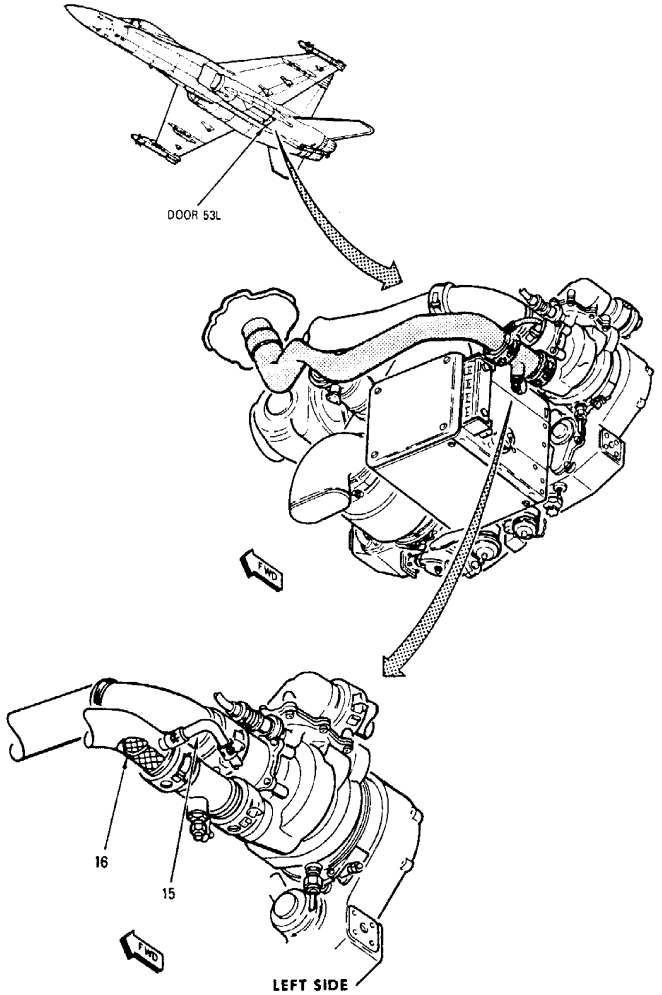


Figure 1. Hot Fuel Recirculation System Component Locator (Sheet 6)

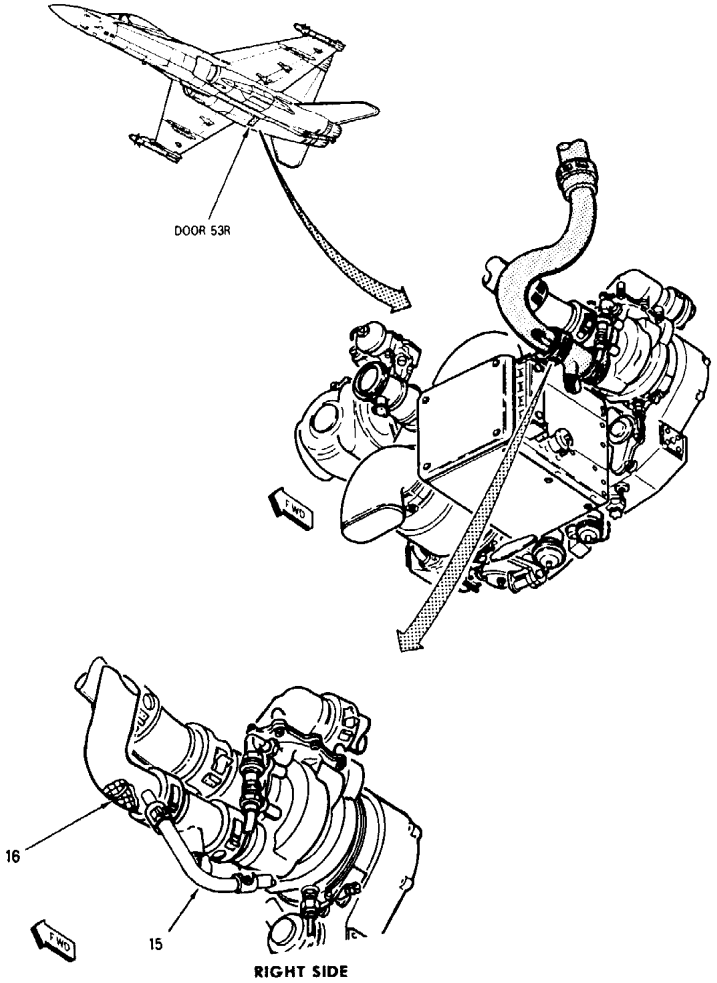


Figure 1. Hot Fuel Recirculation System Component Locator (Sheet 7)

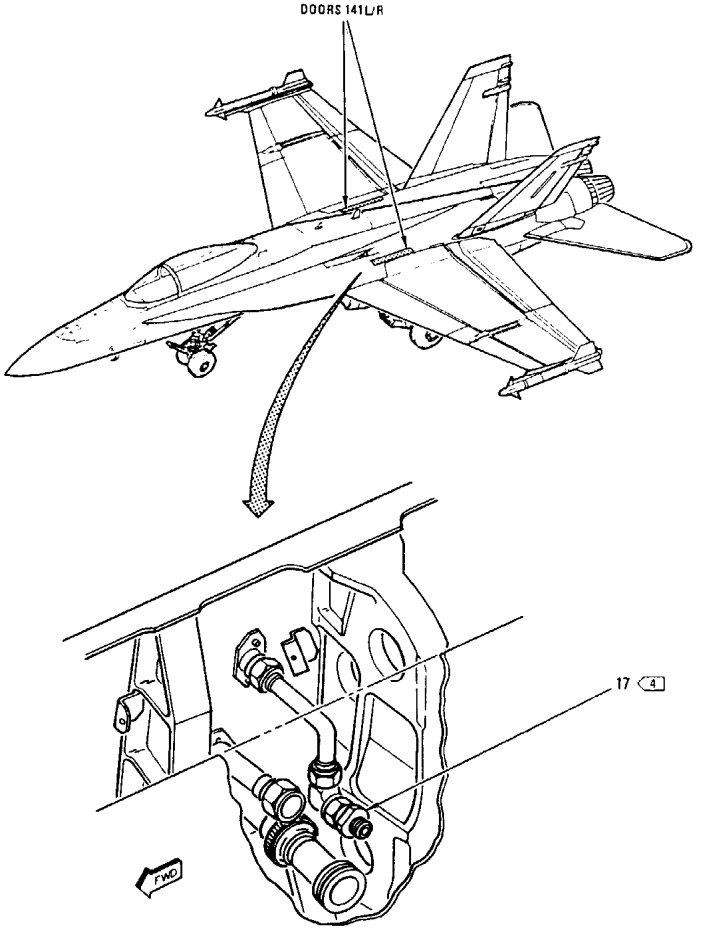
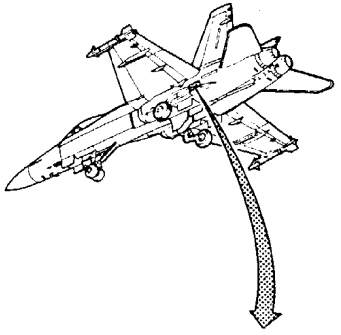


Figure 1. Hot Fuel Recirculation System Component Locator (Sheet 8)



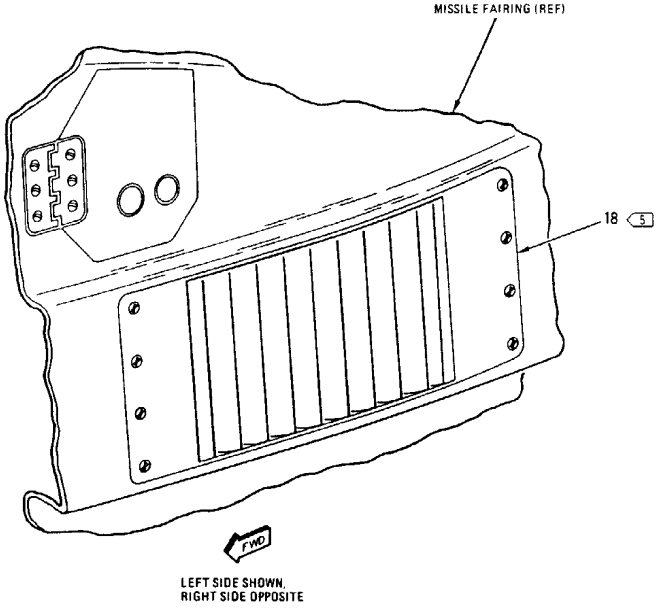
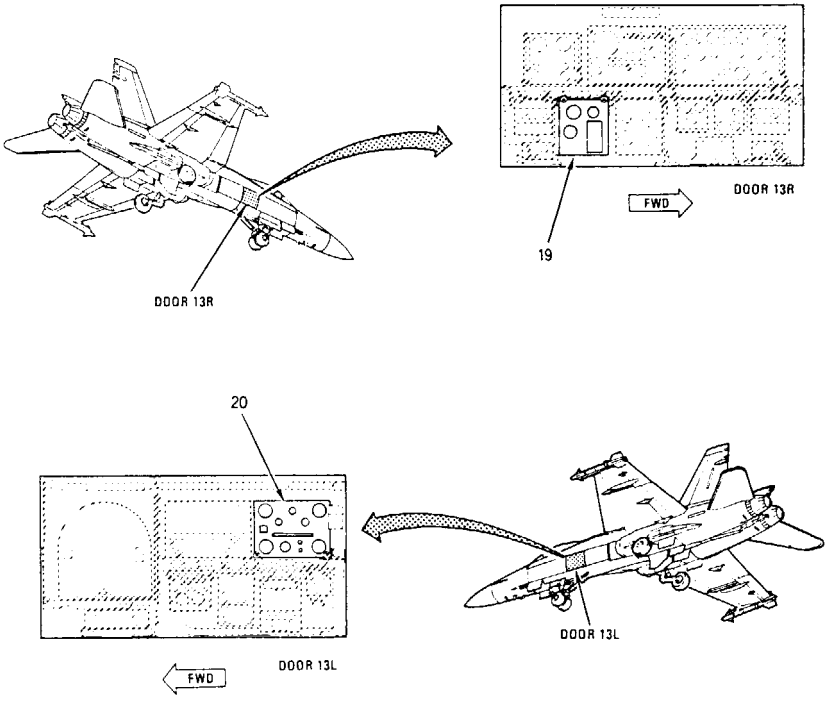
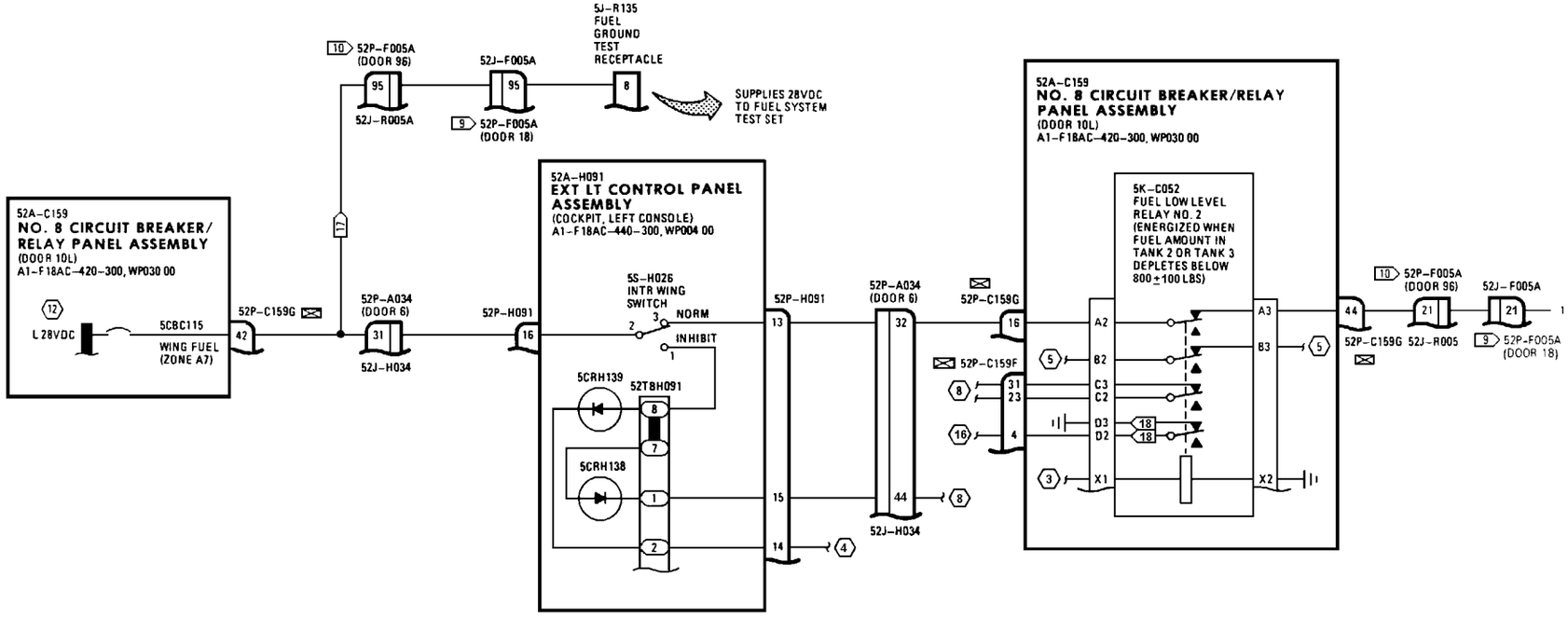


Figure 1. Hot Fuel Recirculation System Component Locator (Sheet 9)



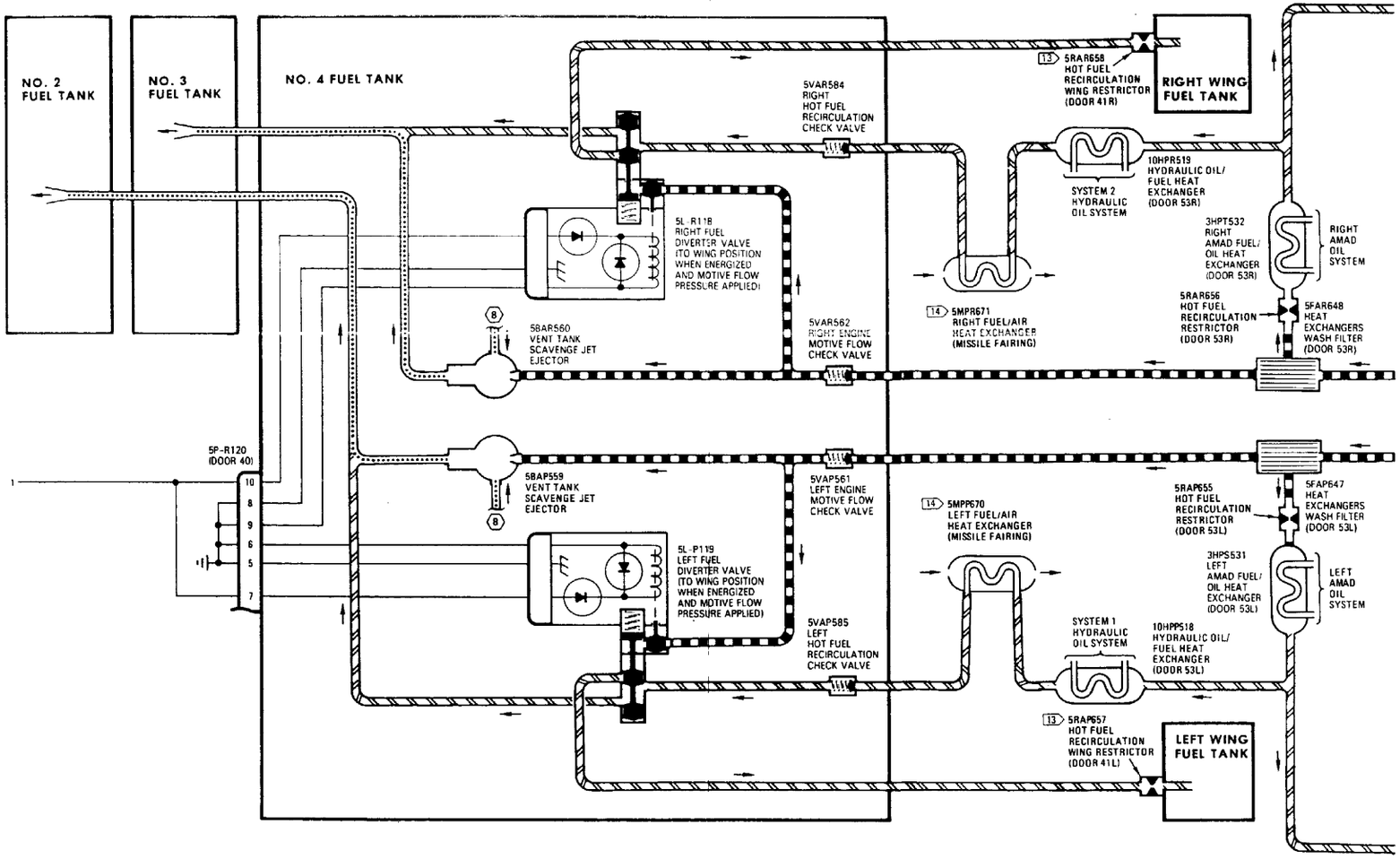
01000110

Figure 1. Hot Fuel Recirculation System Component Locator (Sheet 10)



01000201

Figure 2. Hot Fuel Recirculation System Schematic (Sheet 1)



01000202

Figure 2. Hot Fuel Recirculation System Schematic (Sheet 2)

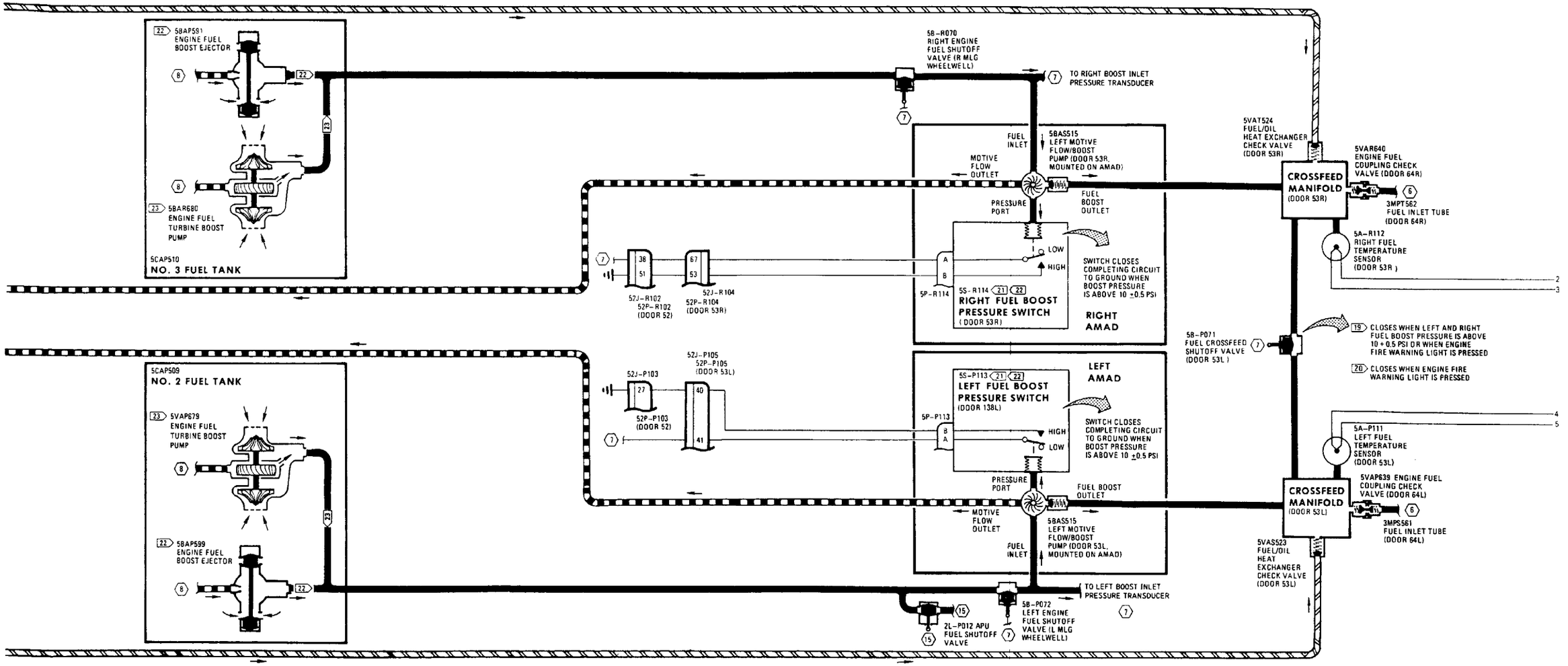


Figure 2. Hot Fuel Recirculation System Schematic (Sheet 3)

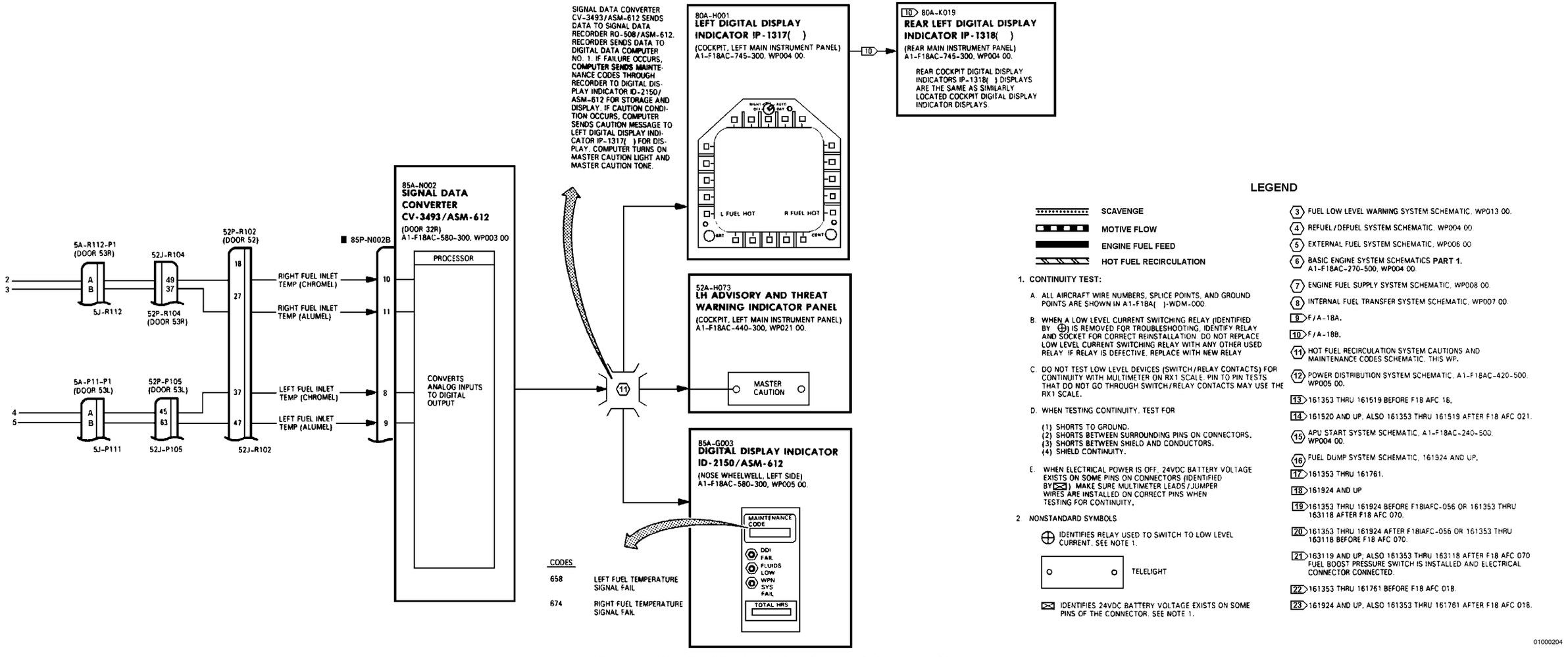
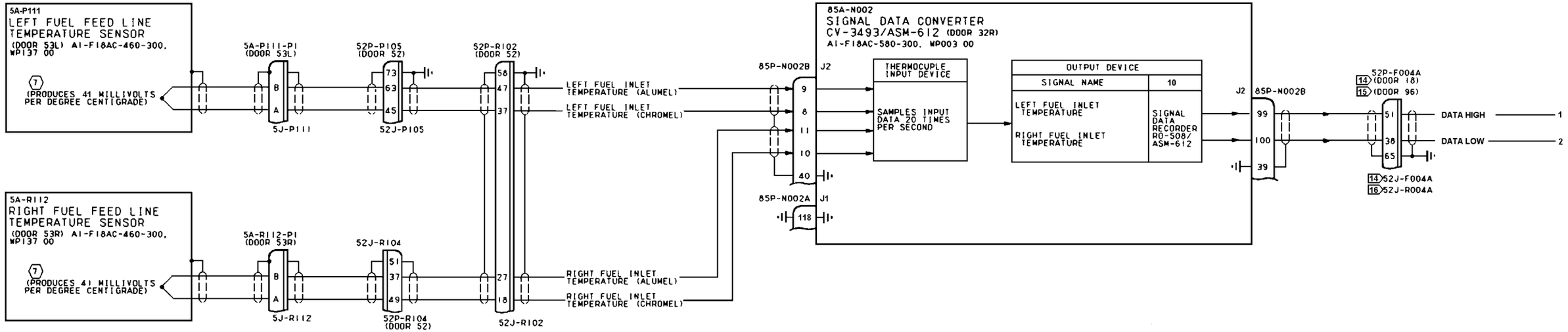
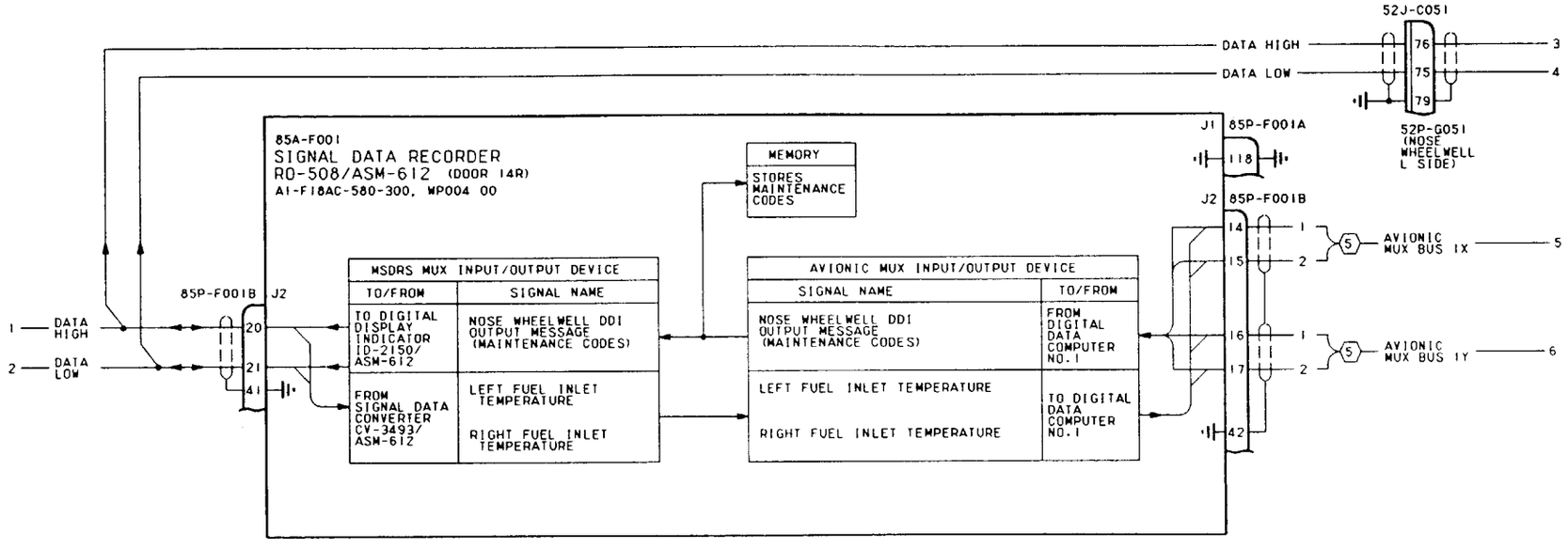


Figure 2. Hot Fuel Recirculation System Schematic (Sheet 4)



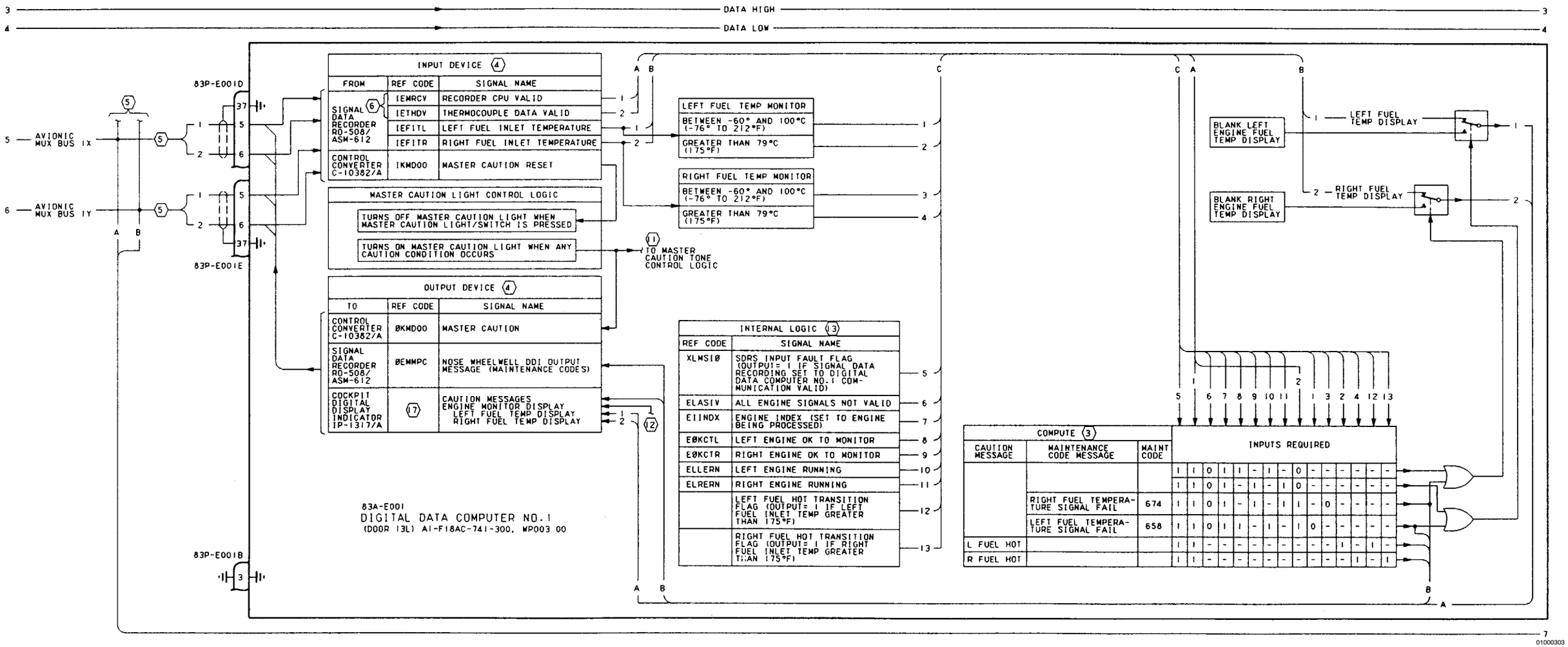
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Figure 3. Hot Fuel Recirculation System maintenance Code and Caution Schematic (Sheet 1)



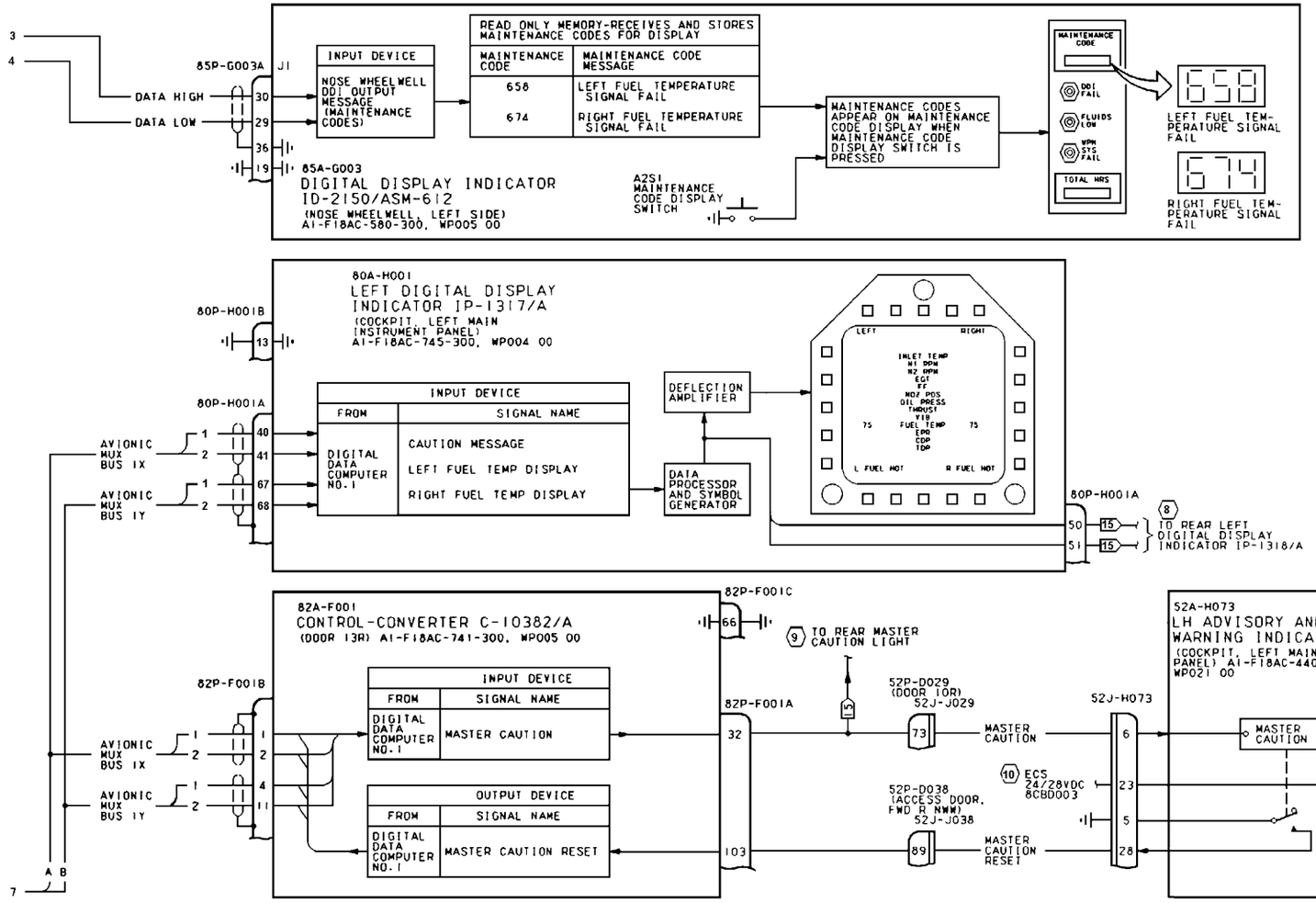
01000302

Figure 3. Hot Fuel Recirculation System maintenance Code and Caution Schematic (Sheet 2)



01000303

Figure 3. Hot Fuel Recirculation System maintenance Code and Caution Schematic (Sheet 3)



LEGEND

1. CONTINUITY TEST:
   A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.
   B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.
   C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RX1 SCALE.
   D. WHEN TESTING CONTINUITY, TEST FOR:
      (1) SHORTS TO GROUND.
      (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
      (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
      (4) SHIELD CONTINUITY.
2. NONSTANDARD SYMBOLS:
   ⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1.



(3) EXPLANATION OF MATRIX
   A. COMPUTE COLUMN LISTS THE SIGNAL OUTPUT.
   B. INPUTS REQUIRED ARE USED TO DEVELOP THE COMPUTED SIGNAL OUTPUT.
   C. SIGNAL OUTPUT IS READ HORIZONTALLY, EACH HORIZONTAL LINE IS AN INDEPENDENT SIGNAL OUTPUT.
   D. INTERPRET MATRIX TABLE AS INDICATED:
      (1) ONE (1) INDICATES THIS INPUT AS NAMED MUST BE THERE TO GET THE OUTPUT.
      (2) ZERO (0) INDICATES THIS INPUT AS NAMED MUST NOT BE THERE TO GET THE OUTPUT.
      (3) DASH (-) INDICATES THE OUTPUT DOES NOT DEPEND ON THIS INPUT.

(4) FOR LOGIC DIAGRAMS RELATING TO REF CODE, REFER TO A1-F18AC-OLD-000.

(5) AVIONIC MUX CHANNEL 1 SCHEMATIC, A1-F18AC-741-500, WP004 00.

(6) MAINTENANCE STATUS DISPLAY AND RECORDING SYSTEM BUILT-IN TEST SCHEMATIC, A1-F18AC-580-500, WP012 00.

(7) HOT FUEL RECIRCULATION SYSTEM SCHEMATIC, THIS WP.

(8) MULTIPURPOSE DISPLAY GROUP INTERCONNECT SCHEMATIC TF/A-18A, A1-F18AC-745-500, WP007 00.

(9) REAR COCKPIT CAUTION LIGHTS SCHEMATIC, A1-F18AC-440-500, WP007 00.

(10) COCKPIT CAUTION LIGHTS SCHEMATIC, A1-F18AC-440-500, WP006 00.

(11) INTER COMMUNICATION AND AUDIO SYSTEM FUNCTIONAL SCHEMATIC, A1-F18AC-600-500, WP013 00.

(12) OVRSPD CAUTIONS AND MAINTENANCE CODES SCHEMATIC, A1-F18AC-270-500, WP010 00.

(13) REF CODES USED FOR THESE COMPUTATIONS ARE MISSION COMPUTER INTERNAL MNEMONICS. TO LOCATE INTERNAL REF CODES IN A1-F18AC-OLD-000, USE THE LOGIC DIAGRAMS FOR THE INPUT/OUTPUT REF CODES.

(14) F/A-18A.

(15) F/A-18B.

(16) F/A-18B PLUG AND JACK POSITIONS ARE REVERSED FROM POSITION SHOWN.

(17) DISPLAY REF CODES ARE NOT SHOWN. IF DISPLAY MALFUNCTION EXISTS, TRANSFER DISPLAY TO ANOTHER INDICATOR. IF MALFUNCTION EXISTS ON MORE THAN ONE INDICATOR, TROUBLESHOOT USING A1-F18AC-OLD-000 INPUT REF CODES. IF MALFUNCTION EXISTS ONLY ON ONE INDICATOR, TROUBLESHOOT BY DOING DISPLAY TEST, A1-F18AC-745-200, WP004 00 (F/A-18A) OR WP005 00 (F/A-18B).

01000304

Figure 3. Hot Fuel Recirculation System maintenance Code and Caution Schematic (Sheet 4)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL PRESSURIZATION AND VENT SYSTEM

Reference Material

None

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Fuel Pressurization and Vent System Component Locator, Figure 1	2
Fuel Pressurization and Vent System Maintenance Code and Caution Schematic, Figure 3	24
Fuel Pressurization and Vent System Schematic, Figure 2	19

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve, and Raised Inverted Baffle (ECP MDA-F/A-18-00055)	1 Aug 86	-
F/A-18 AFC 41	-	Installation of Equipment, Structure, Wiring and Attaching Hardware (ECP MDA-F/A-18-00054C1)	1 Nov 86	-

NOMENCLATURE	INDEX NO.	REF DES
AIR DATA COMPUTER	10	70A–F001
AIR PRESSURE SWITCH (2PSI)	22	5S–T106
ARRESTING HOOK CONTROL HANDLE	3	19A–J003
BLEED AIR CHECK VALVE	29	5VAR620
BLEED AIR CHECK VALVE	21	5VAT507
CENTERLINE PYLON TO EXTERNAL TANK FUEL/AIR COUPLING VALVE	37	5VAZ629
CLIMB VENT CHECK VALVE	14	5VAP531
CONTROL–CONVERTER C–10382/A	9	82A–F001
DIGITAL DATA COMPUTER NO. 1	5	83A–E001
DIGITAL DISPLAY INDICATOR ID–2150/ASM–612	11	85A–G003
DIVE VENT CHECK VALVE	15	
TANK 1		5VAP530
TANK 2		5VAP533
TANK 3		5VAP582
TANK 4		5VAP555
EXTERNAL FUEL SYSTEM (5 PSI) AIR PRESSURE SWITCH	33	5S–P151
EXTERNAL FUEL SYSTEM (34 PSI) AIR PRESSURE SWITCH	32	5S–P152
EXTERNAL FUEL SYSTEM GROUND TEST CONNECTOR	34	
EXTERNAL FUEL SYSTEM PRESSURIZATION BLEED ORIFICE	35	5VAP654
EXTERNAL TANKS AIR PRESSURE CHECK VALVE	28	5VAR620
EXTERNAL TANKS AIR PRESSURE REGULATOR	26	5L–P102
EXTERNAL TANKS AIR PRESSURE TRANSDUCER	27	5MTR130
EXTERNAL TANK PRESSURE RELIEF VALVE	41	5VAY641
FUEL SYSTEM CONTROL PANEL	4	5A–H027
EXT TANKS – WING SWITCH		5S–H017
EXT TANKS – CTR SWITCH		5S–H018
PROBE CONTROL SWITCH		5S–H005
FUEL VENT LINE FLAME ARRESTOR	16	
LEFT		5MPS504
RIGHT		5MPT505
GROUND AIR PRESSURIZATION CONNECTOR	24	
GROUND AIR PRESSURIZATION FILTER	23	5FAP638
INTERNAL AIR PRESSURIZATION CHECK VALVE	17	5VAT513
INTERNAL FUEL TANKS AIR PRESSURE REGULATOR	18	5L–T104
LEFT DIGITAL DISPLAY INDICATOR IP–1317/A	2	80A–H001
LH ADVISORY AND THREAT WARNING INDICATOR PANEL	1	52A–H073
NO. 3 RELAY PANEL ASSEMBLY	6	52A–E059
NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY	7	52A–C159
PRESSURIZATION AND VENT VALVE	38	5VAY630
PRESSURIZATION SYSTEM AIR PUMP	19	
LEFT		5BAS512
RIGHT		5BAT511
PYLON AIR PROBE	39	5VAY642
PYLON FUEL PROBE	40	5VAY637
SIGNAL DATA CONVERTER CV–3493/ASM–612	12	85A–N002
SIGNAL DATA RECORDER RO–508/ASM–612	8	85A–F001
TANK PRESSURE/FUEL FLOW INDICATOR	13	5DSD625
VENT SYSTEM SIPHON BREAKER	20	5VAS545
VENT TANK PRESSURE TRANSDUCER	25	5MTT129
WING PYLON TO EXTERNAL TANK FUEL/AIR COUPLING VALVE	36	
WING AIR COUPLING VALVE	31	
LEFT		5VAU577
RIGHT		5VAV578
WING FUEL COUPLING VALVE	30	
LEFT		5VAU575
RIGHT		5VAV576

01100101

Figure 1. Fuel Pressurization and Vent System Component Locator (Sheet 1)

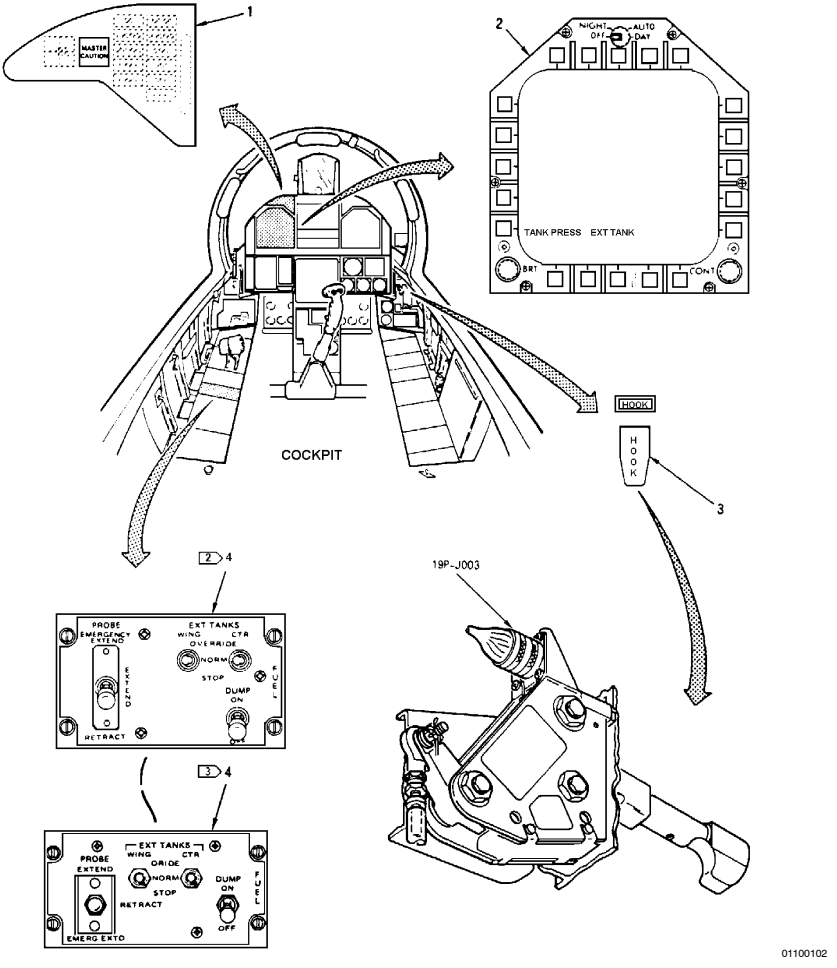


Figure 1. Fuel Pressurization and Vent System Component Locator (Sheet 2)

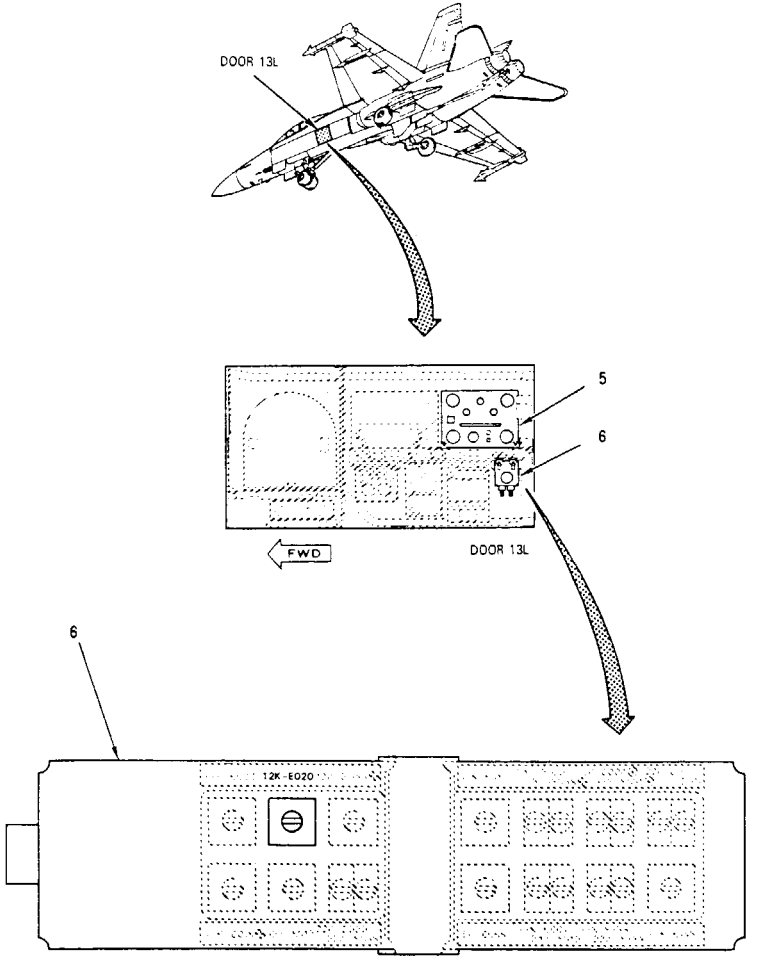
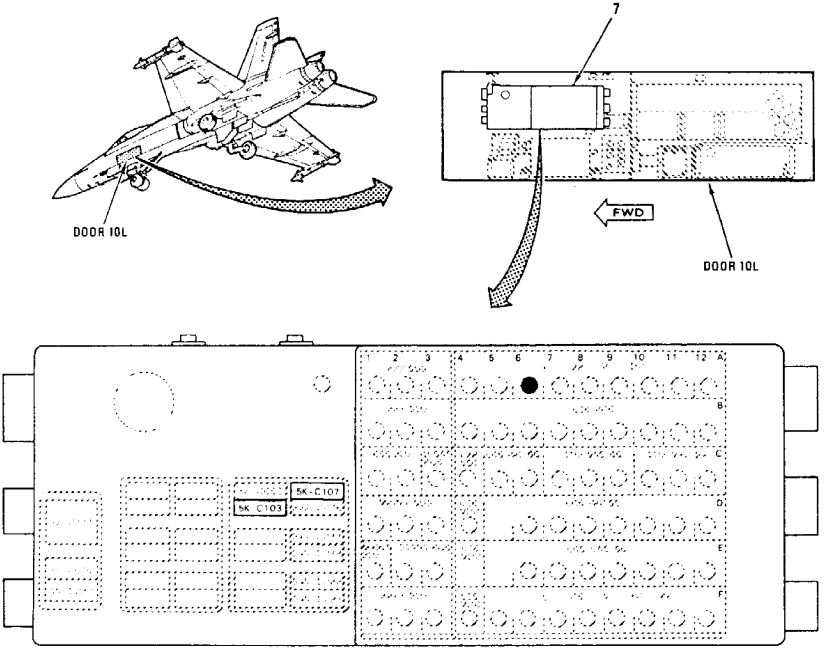


Figure 1. Fuel Pressurization and Vent System Component Locator (Sheet 3)



52A-C159

52A-C159 NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
A6	5CBC101 5K-C103 5K-C107	FUEL TK PRESS 20K FT RELAY EXTERNAL TANK REFUEL CONTROL RELAY	L 28VDC

01100104

Figure 1. Fuel Pressurization and Vent System Component Locator (Sheet 4)

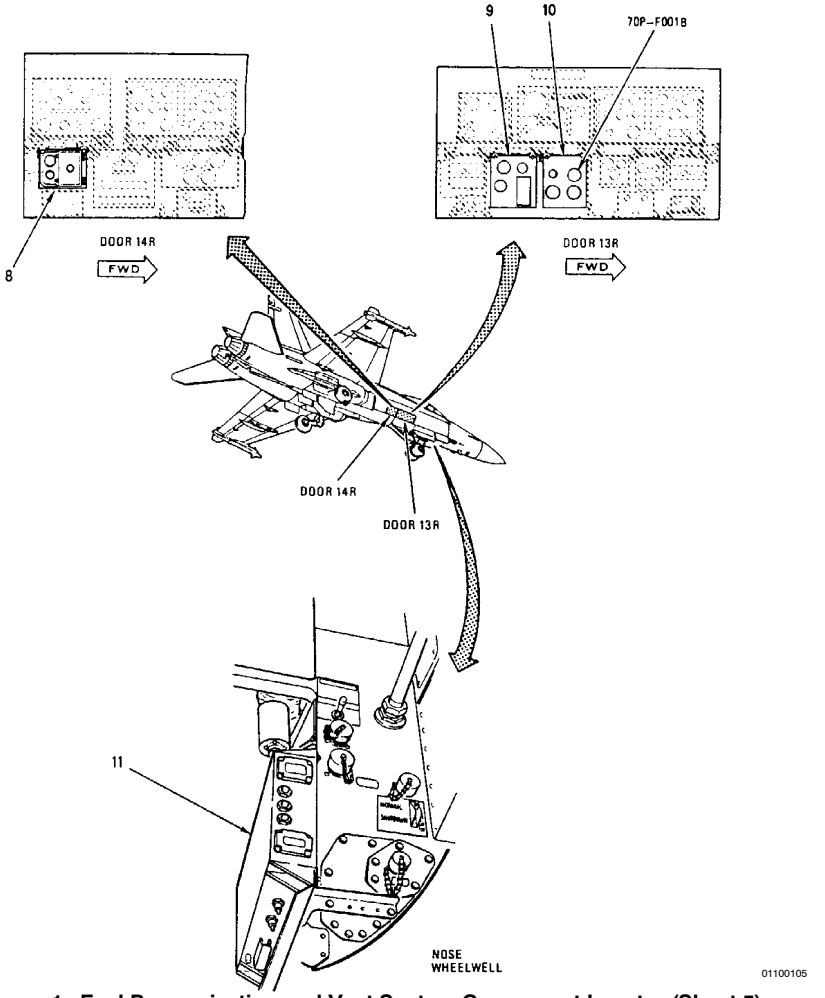


Figure 1. Fuel Pressurization and Vent System Component Locator (Sheet 5)

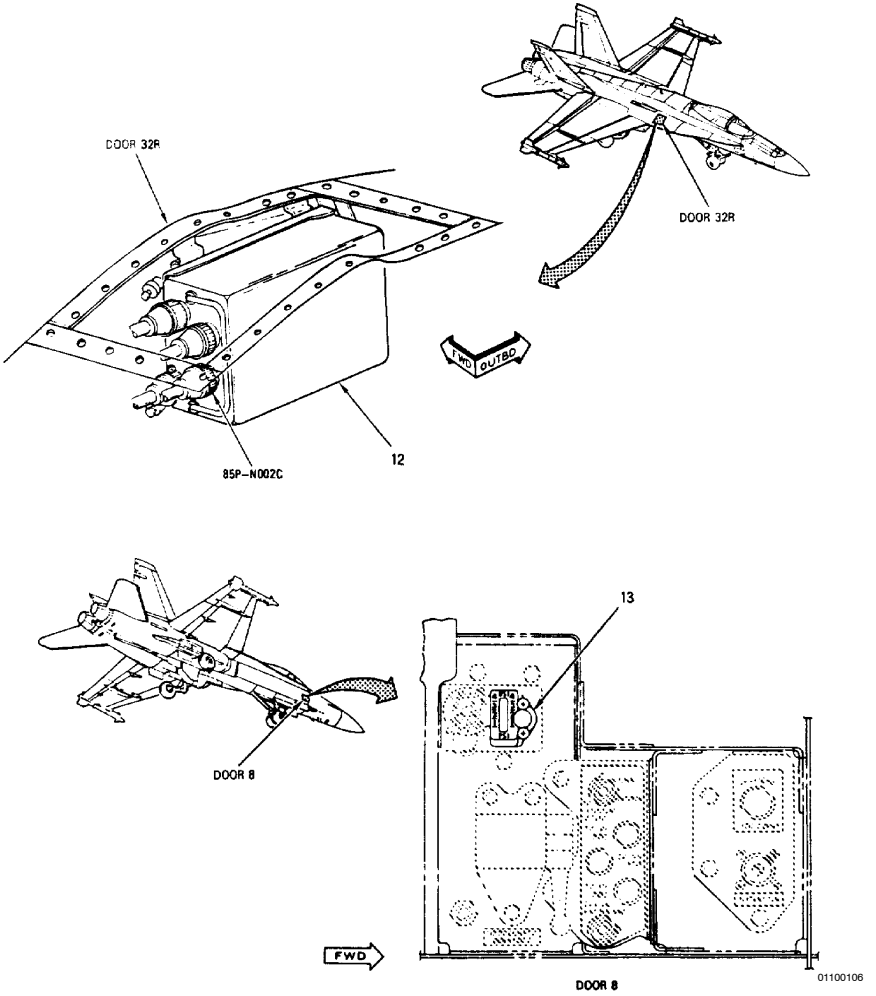


Figure 1. Fuel Pressurization and Vent System Component Locator (Sheet 6)

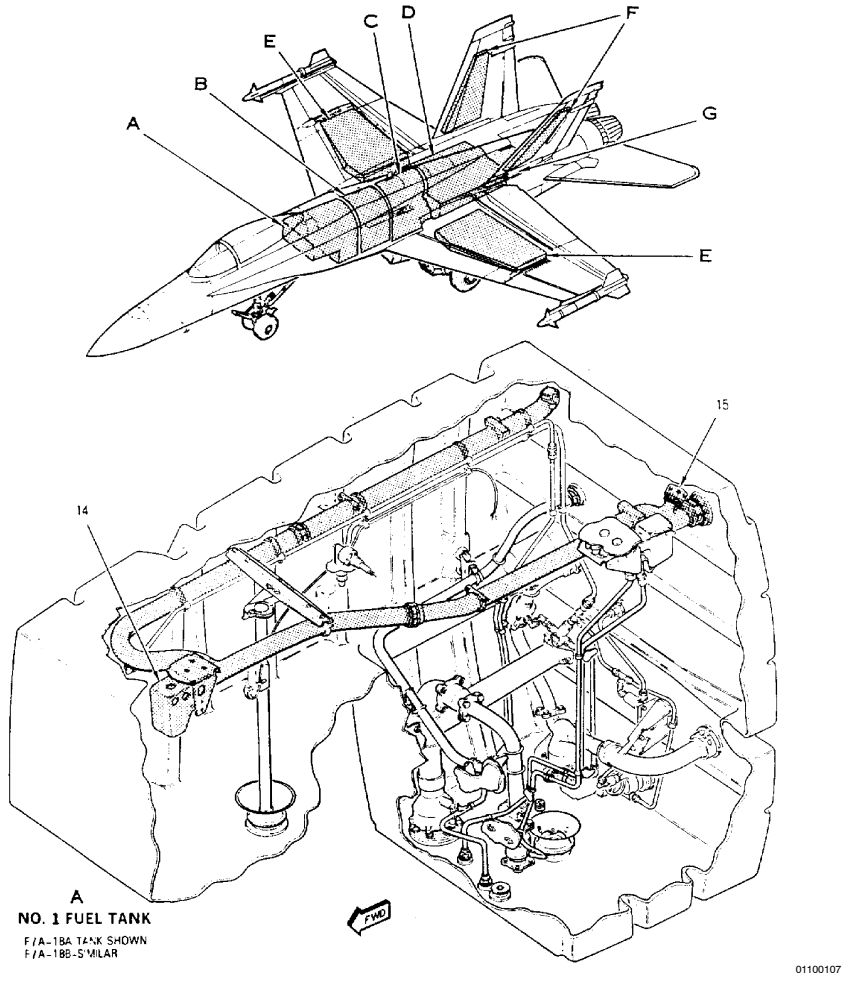


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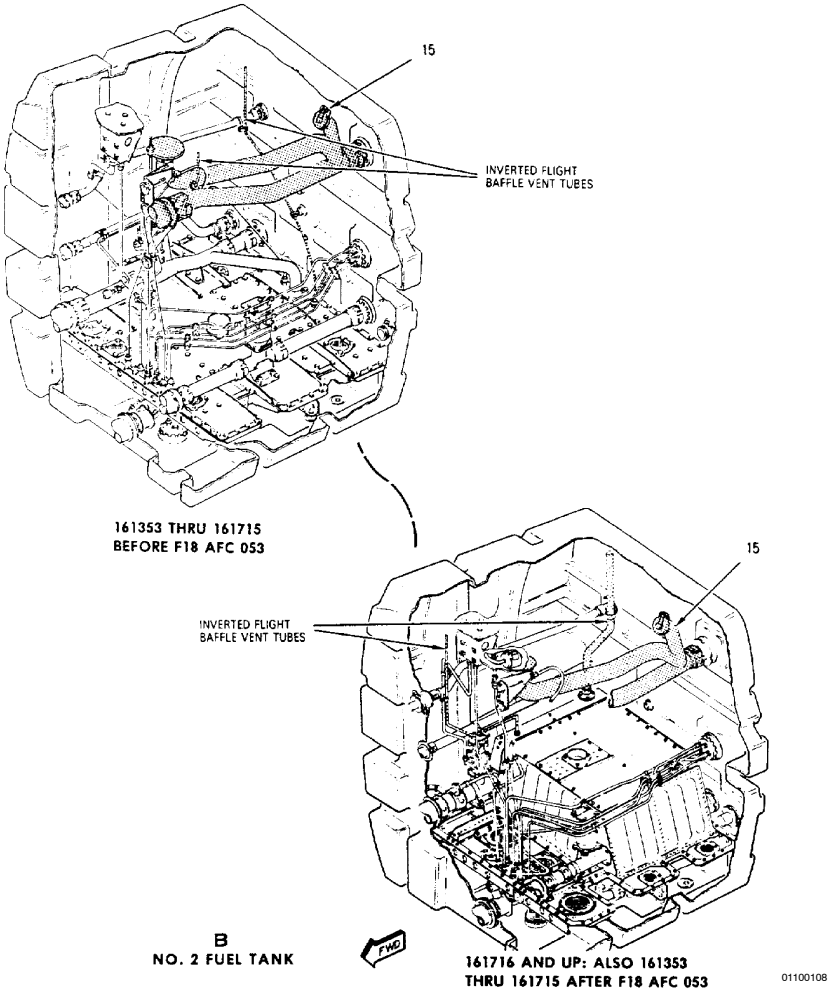


Figure 1. Fuel Pressurization and Vent System Component Locator (Sheet 8)

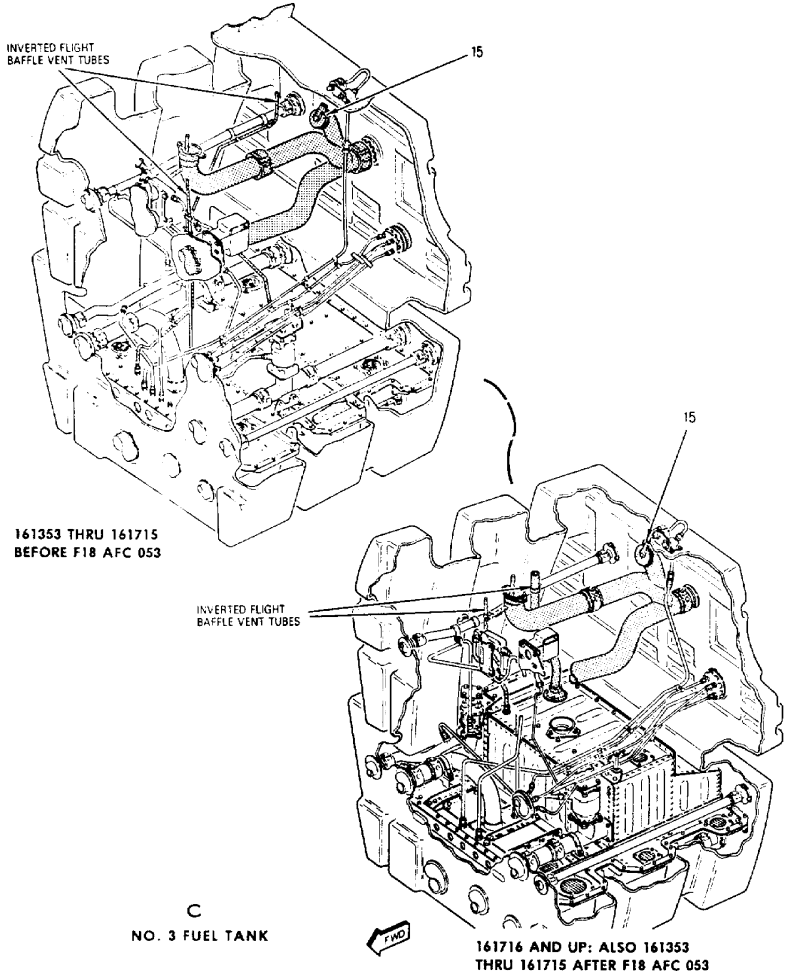


Figure 1. Fuel Pressurization and Vent System Component Locator (Sheet 9)

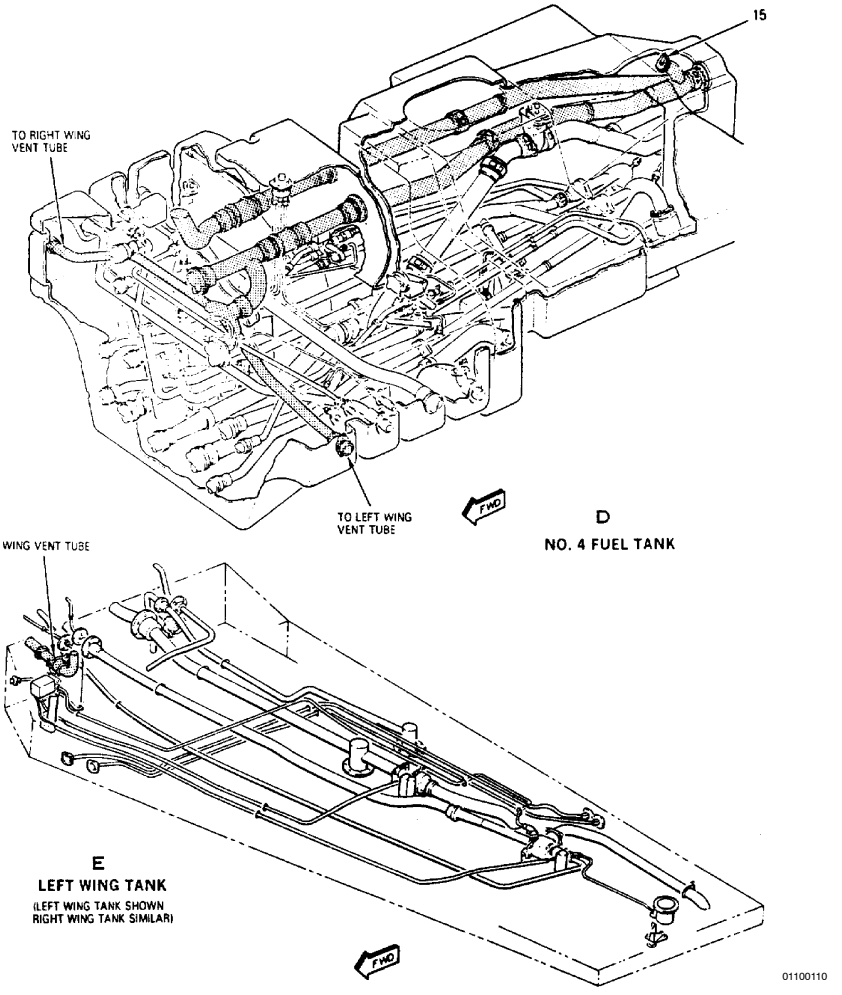


Figure 1. Fuel Pressurization and Vent System Component Locator (Sheet 10)

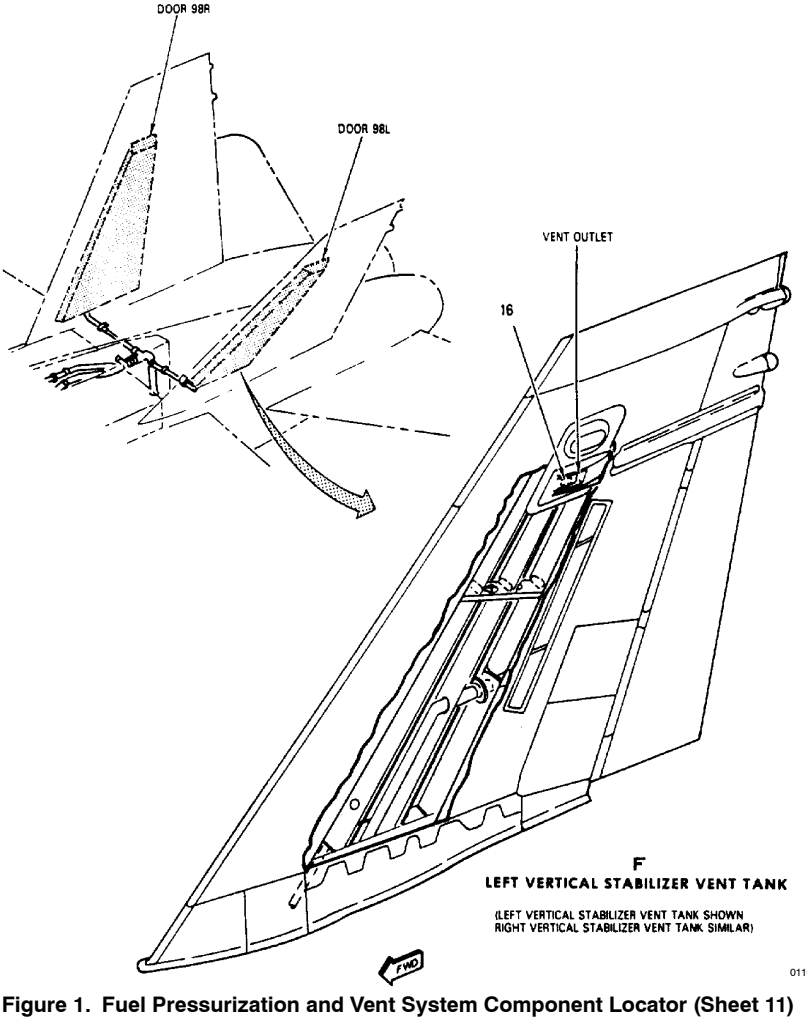


Figure 1. Fuel Pressurization and Vent System Component Locator (Sheet 11)

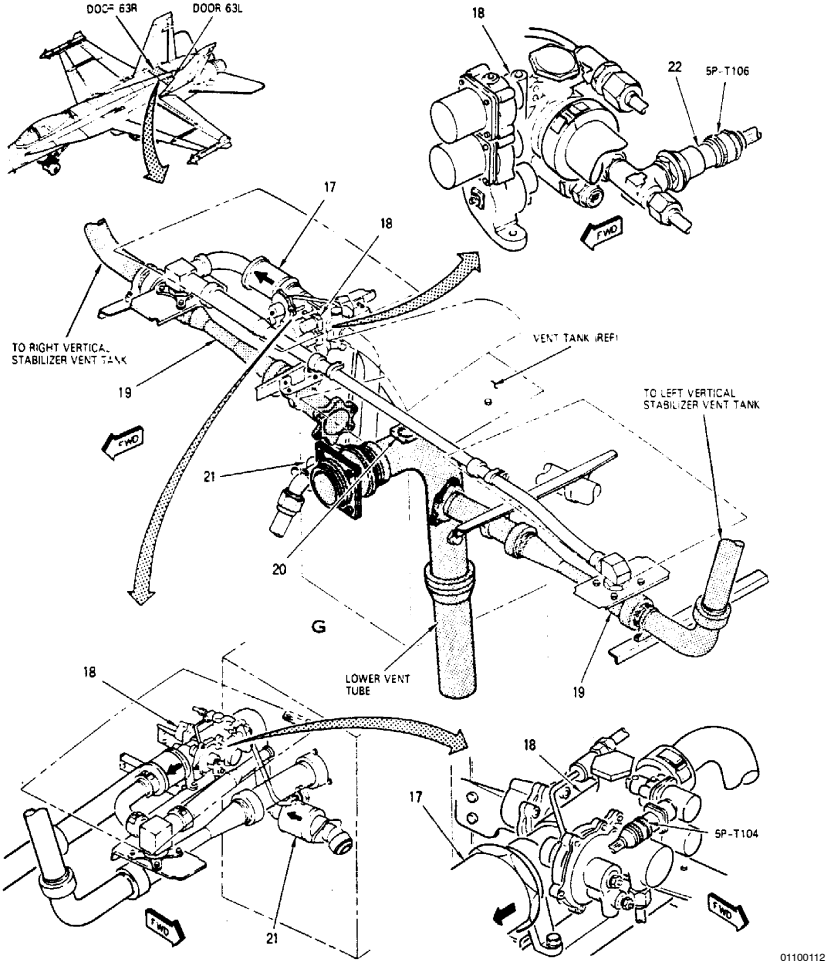


Figure 1. Fuel Pressurization and Vent System Component Locator (Sheet 12)

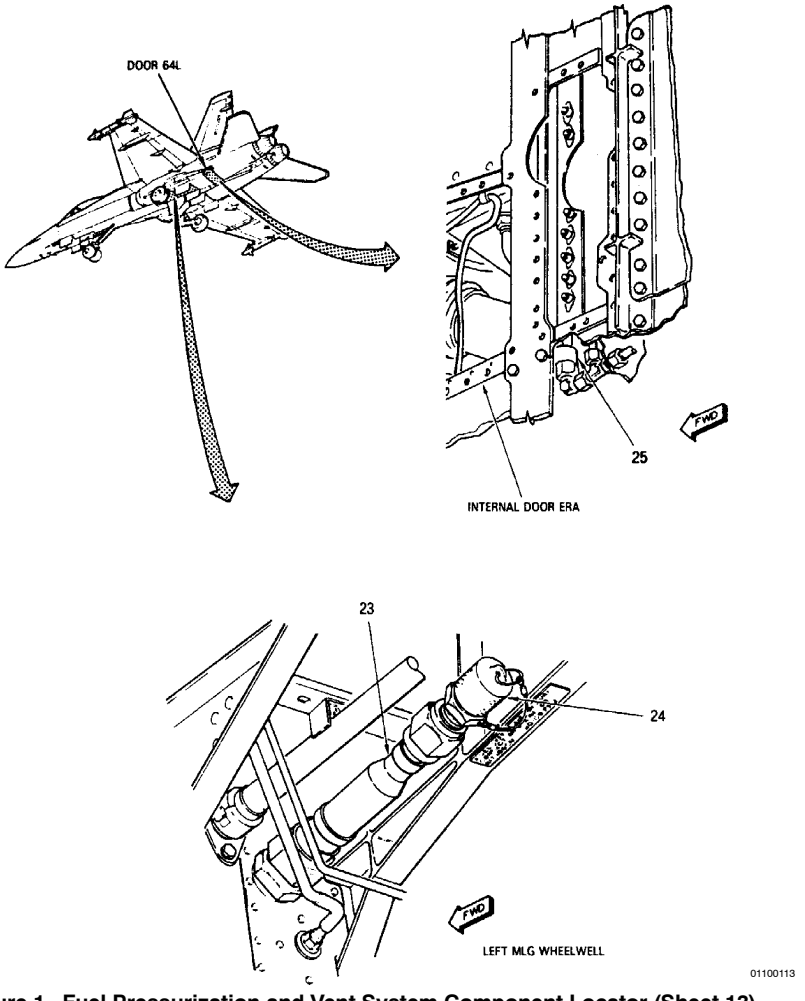


Figure 1. Fuel Pressurization and Vent System Component Locator (Sheet 13)

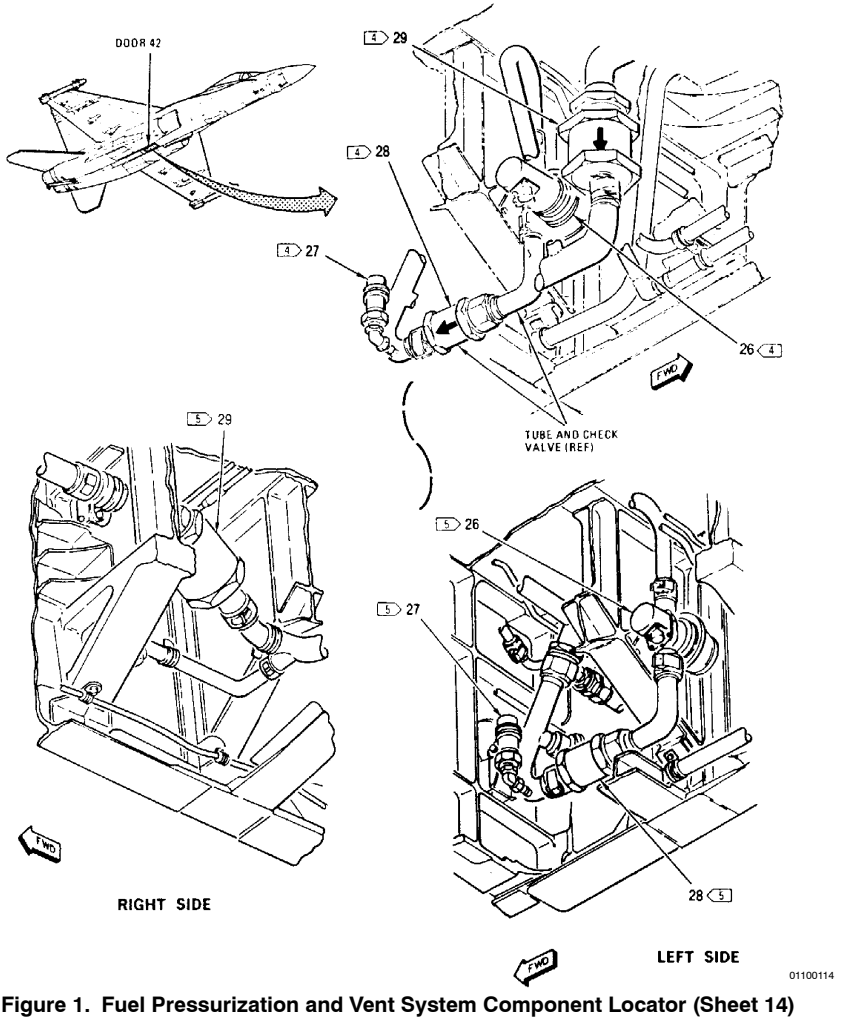


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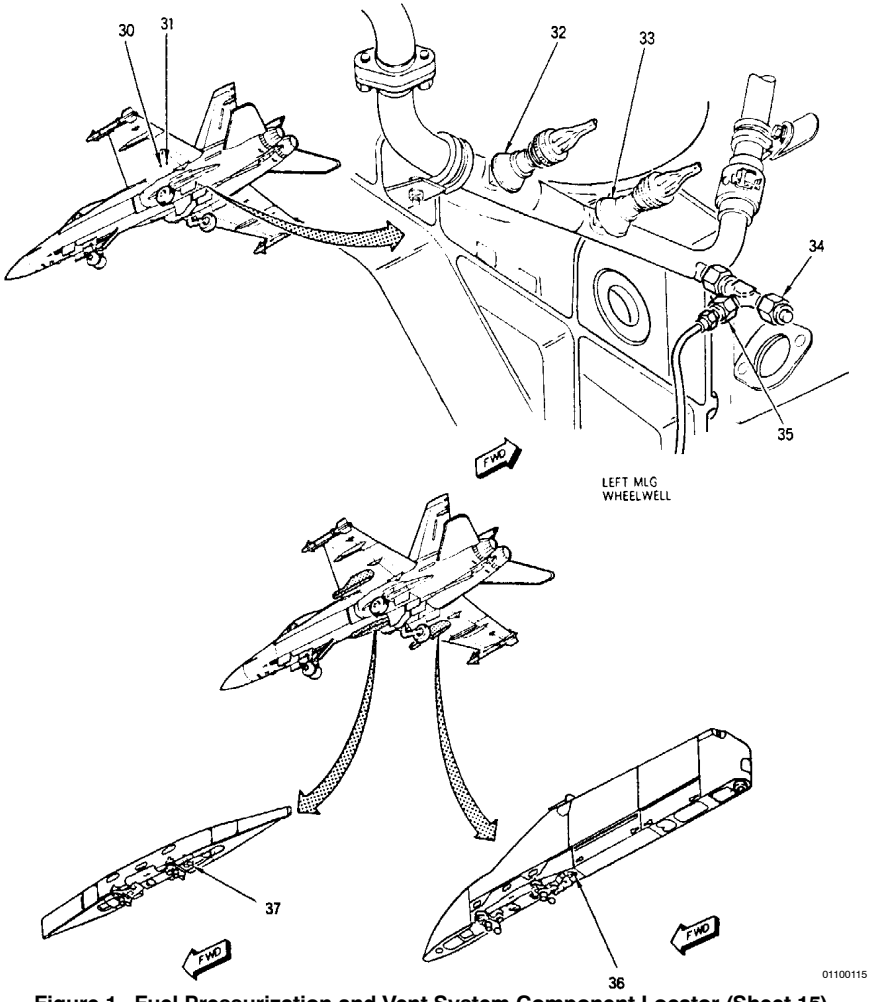


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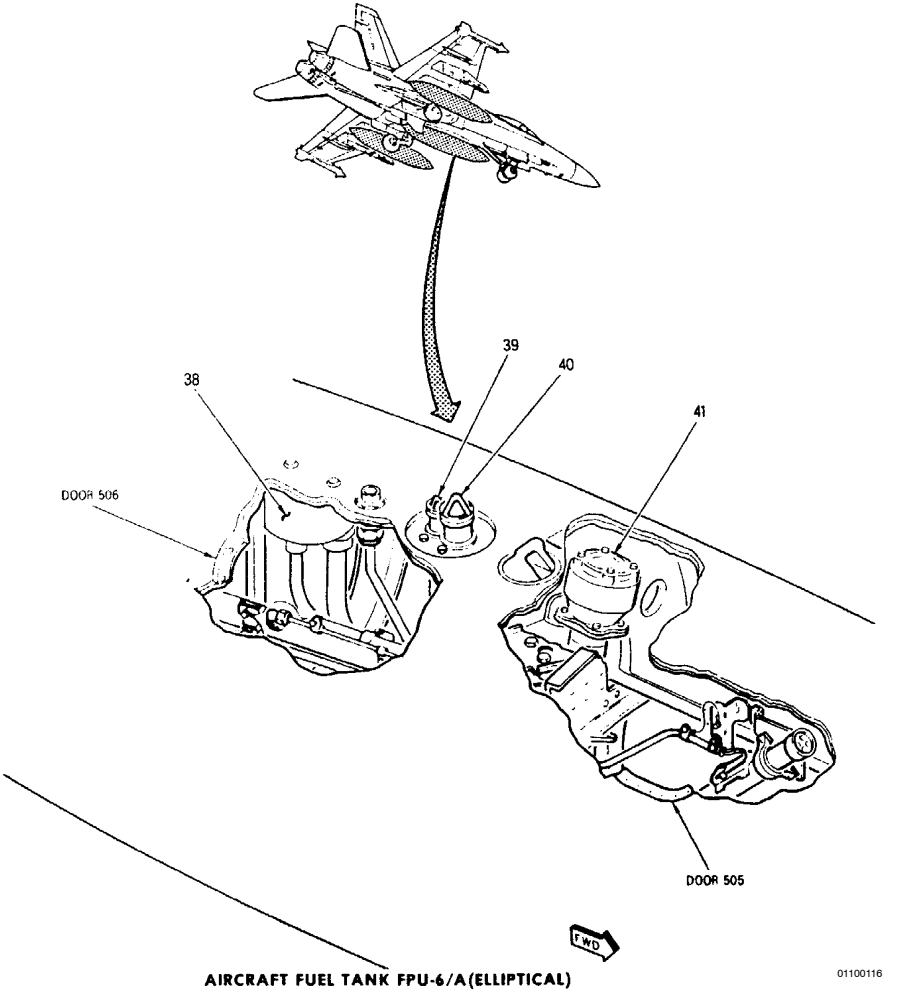


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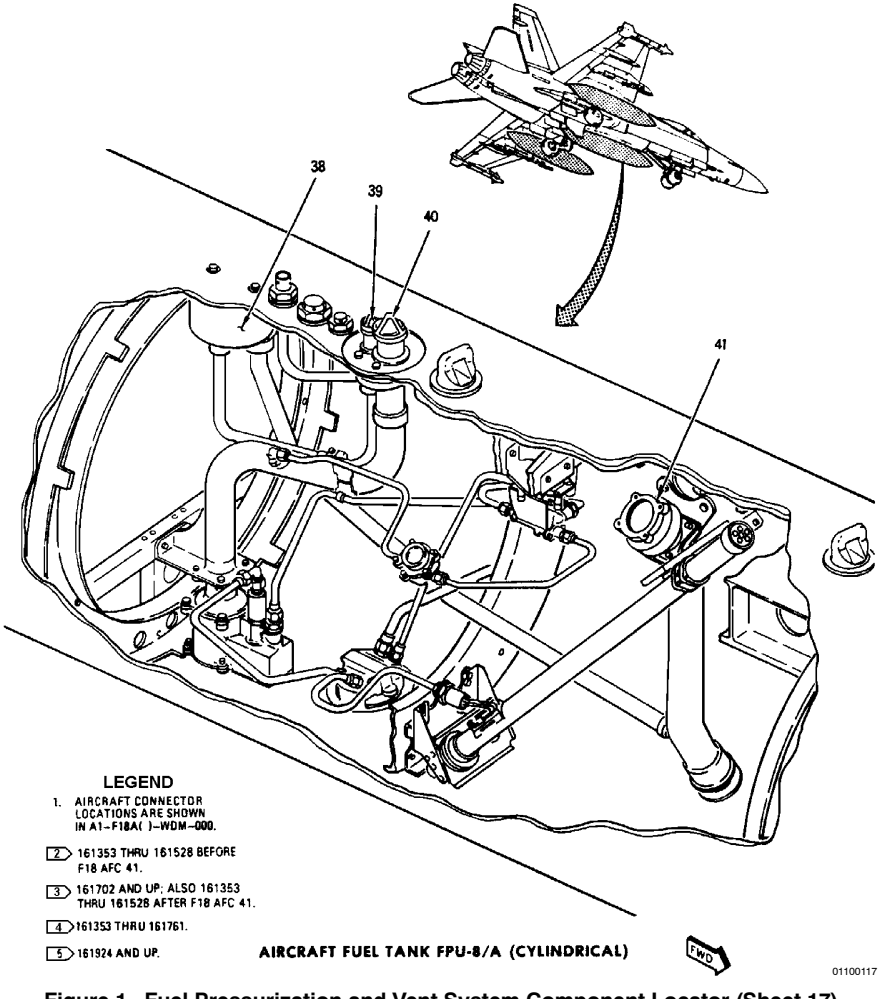


Figure 1. Fuel Pressurization and Vent System Component Locator (Sheet 17)

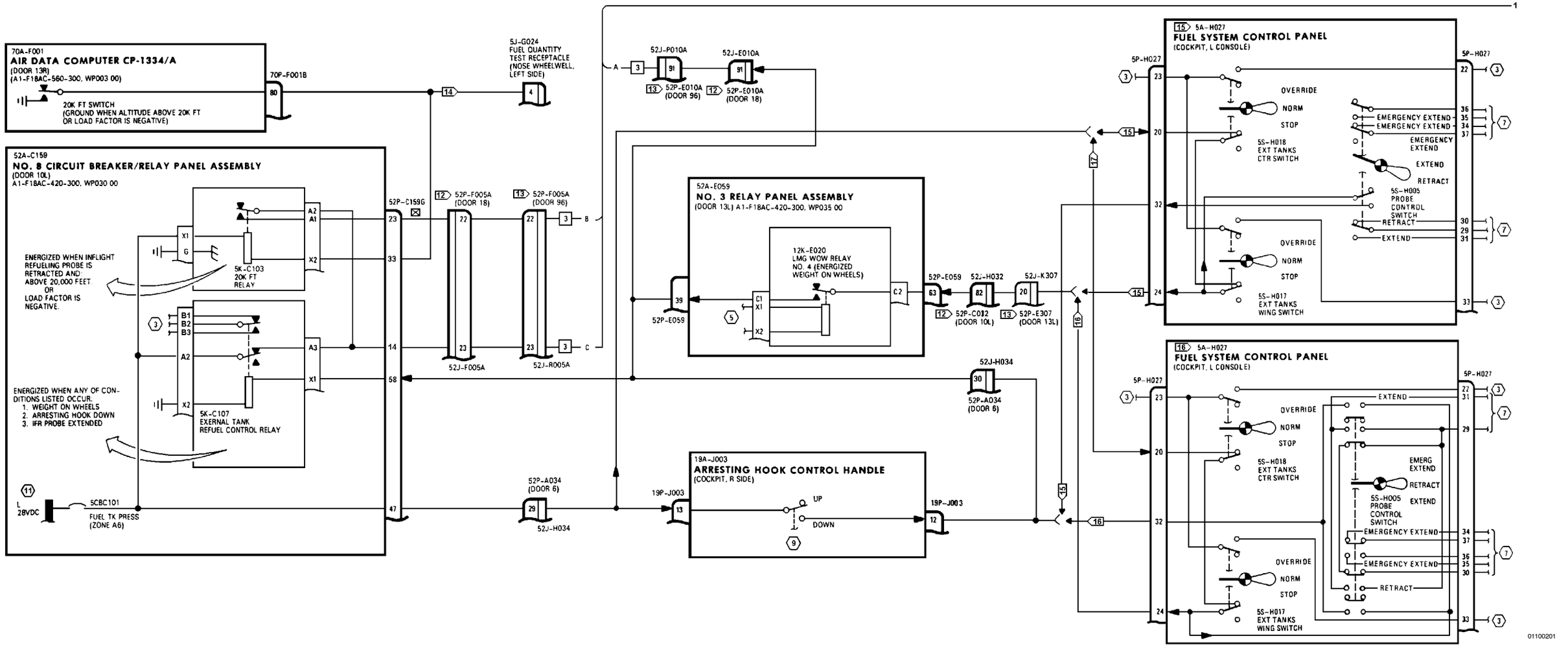


Figure 2. Fuel Pressurization and Vent System Schematic (Sheet 1)

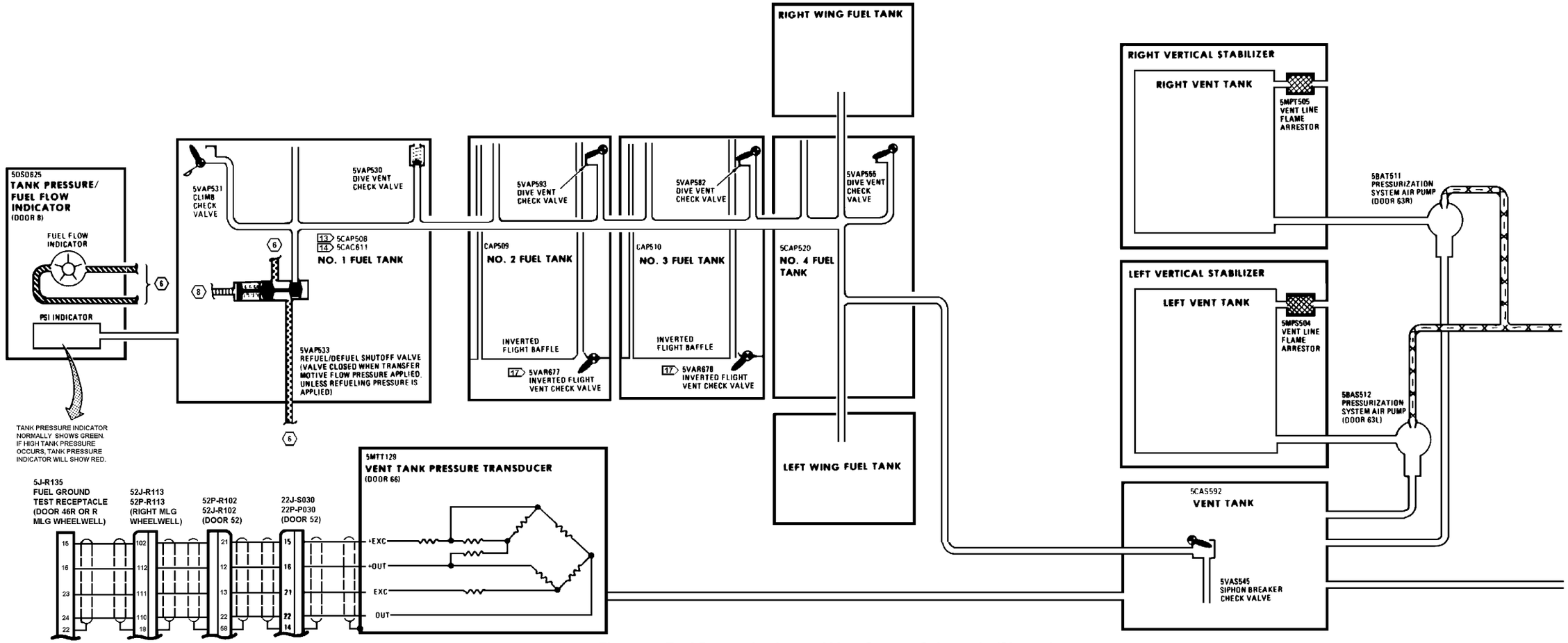


Figure 2. Fuel Pressurization and Vent System Schematic (Sheet 2)

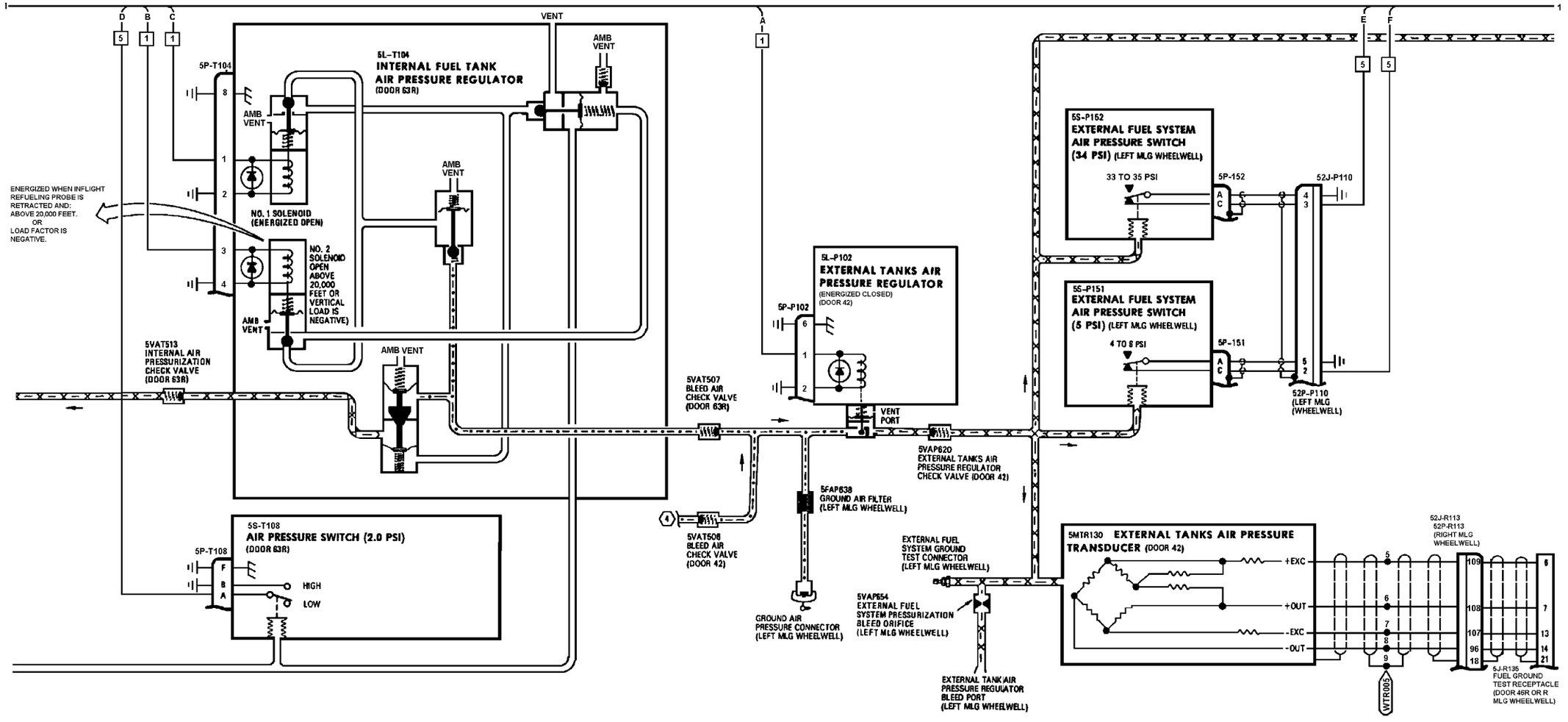


Figure 2. Fuel Pressurization and Vent System Schematic (Sheet 3)

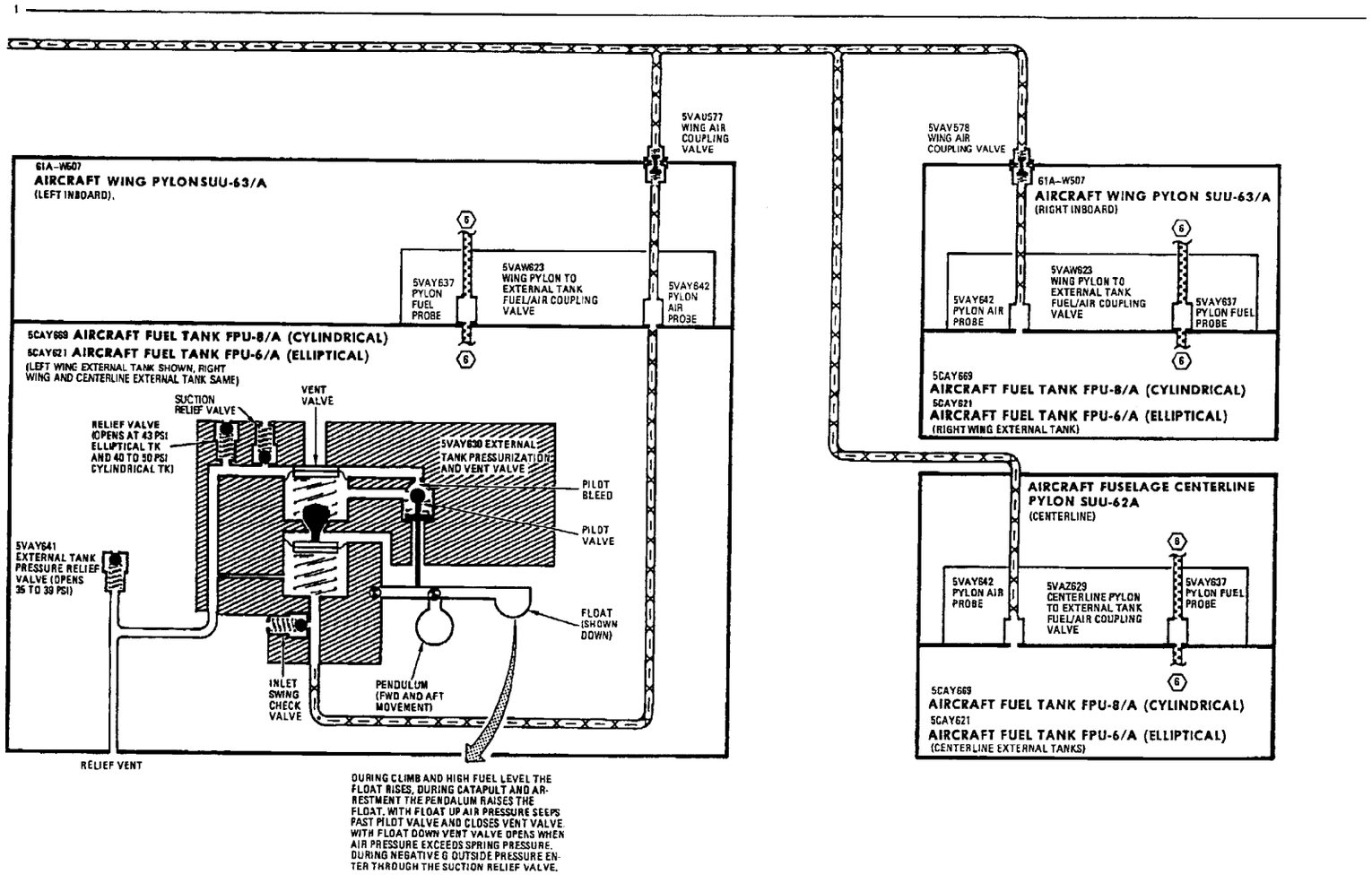


Figure 2. Fuel Pressurization and Vent System Schematic (Sheet 4)

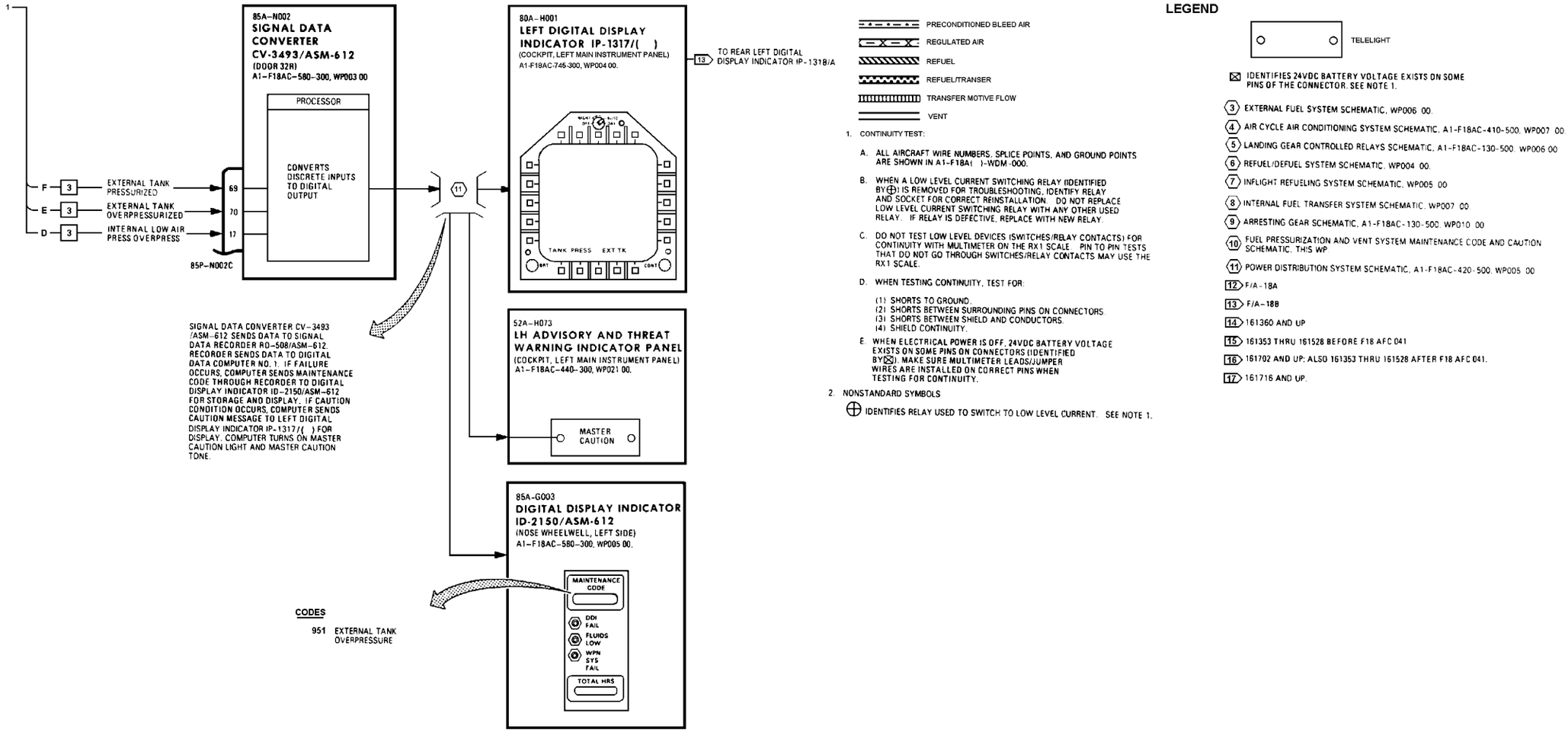
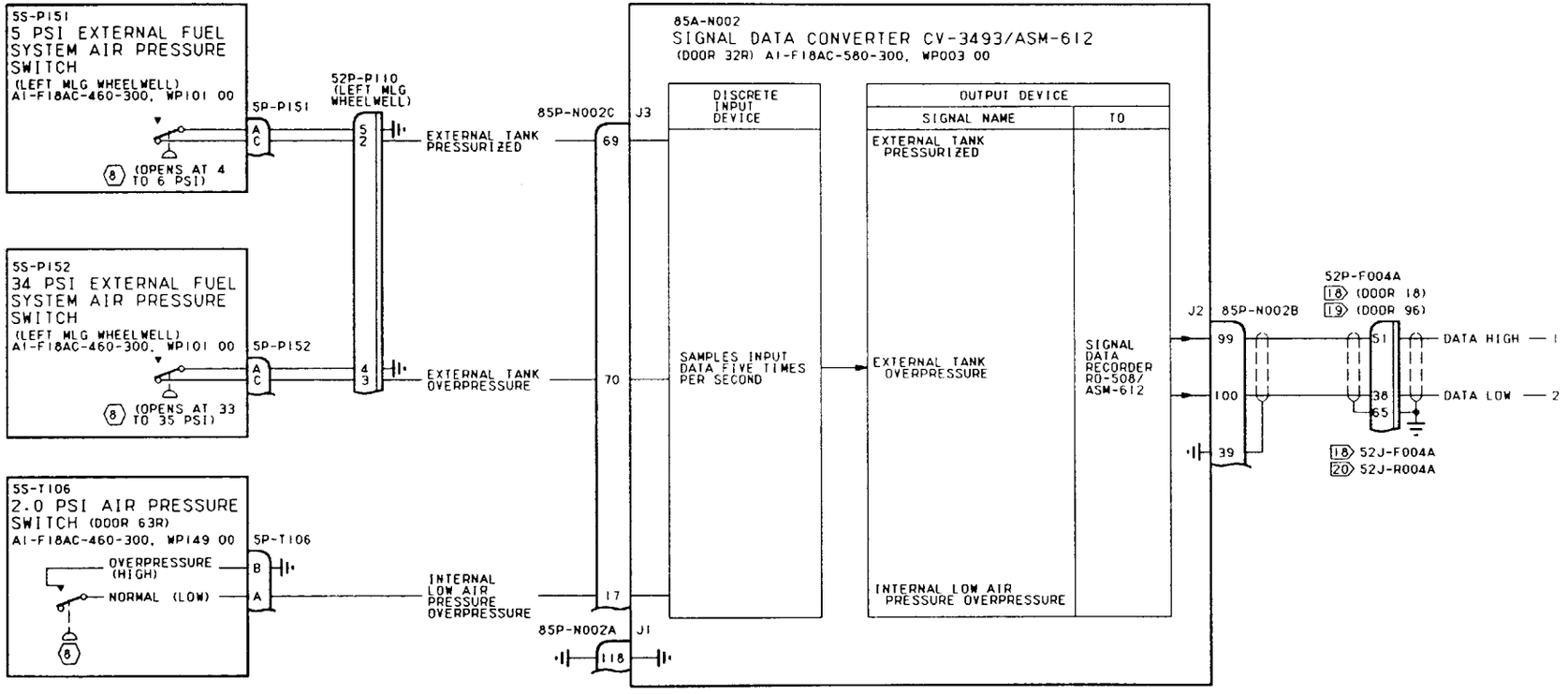
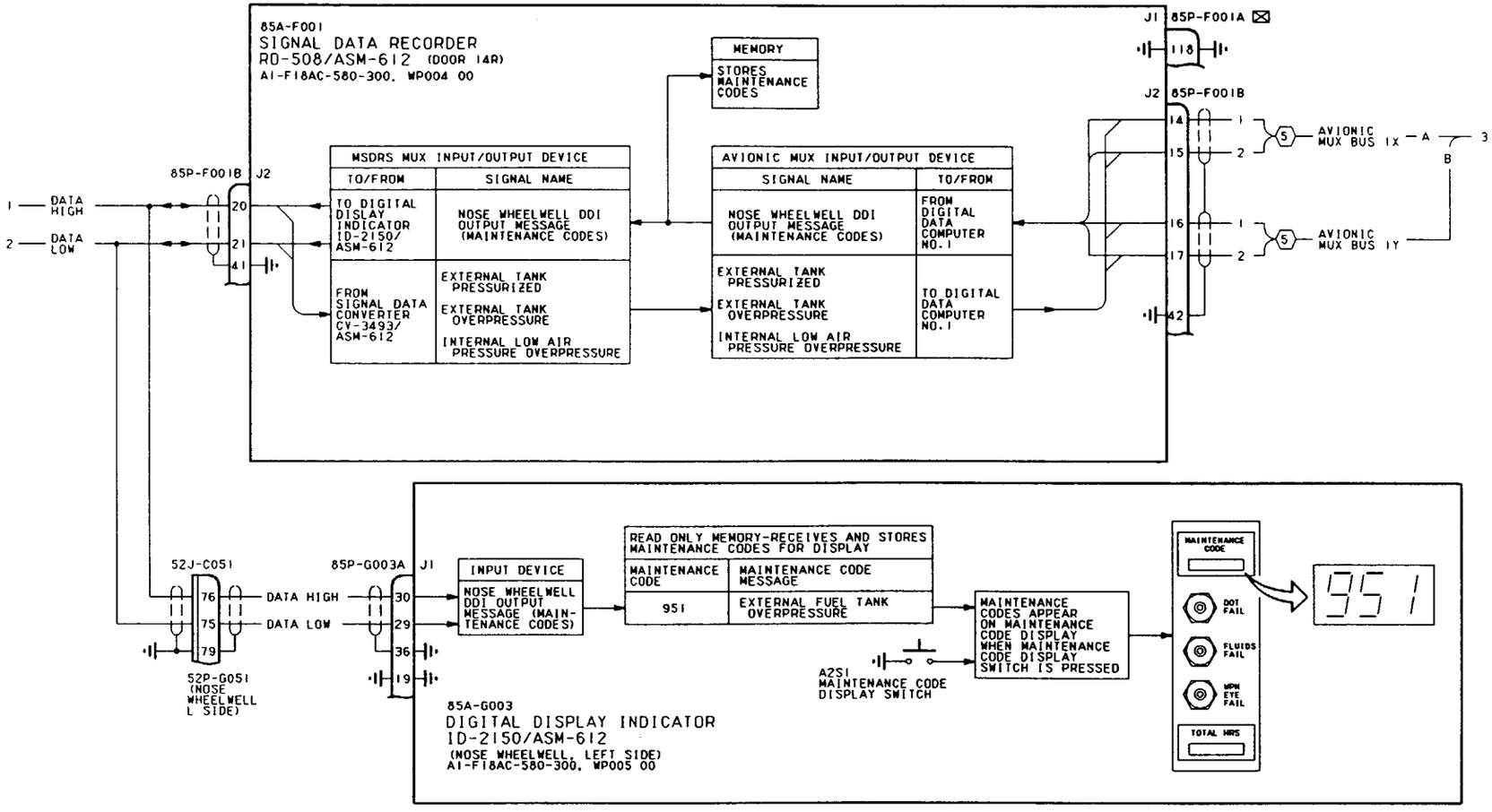


Figure 2. Fuel Pressurization and Vent System Schematic (Sheet 5)



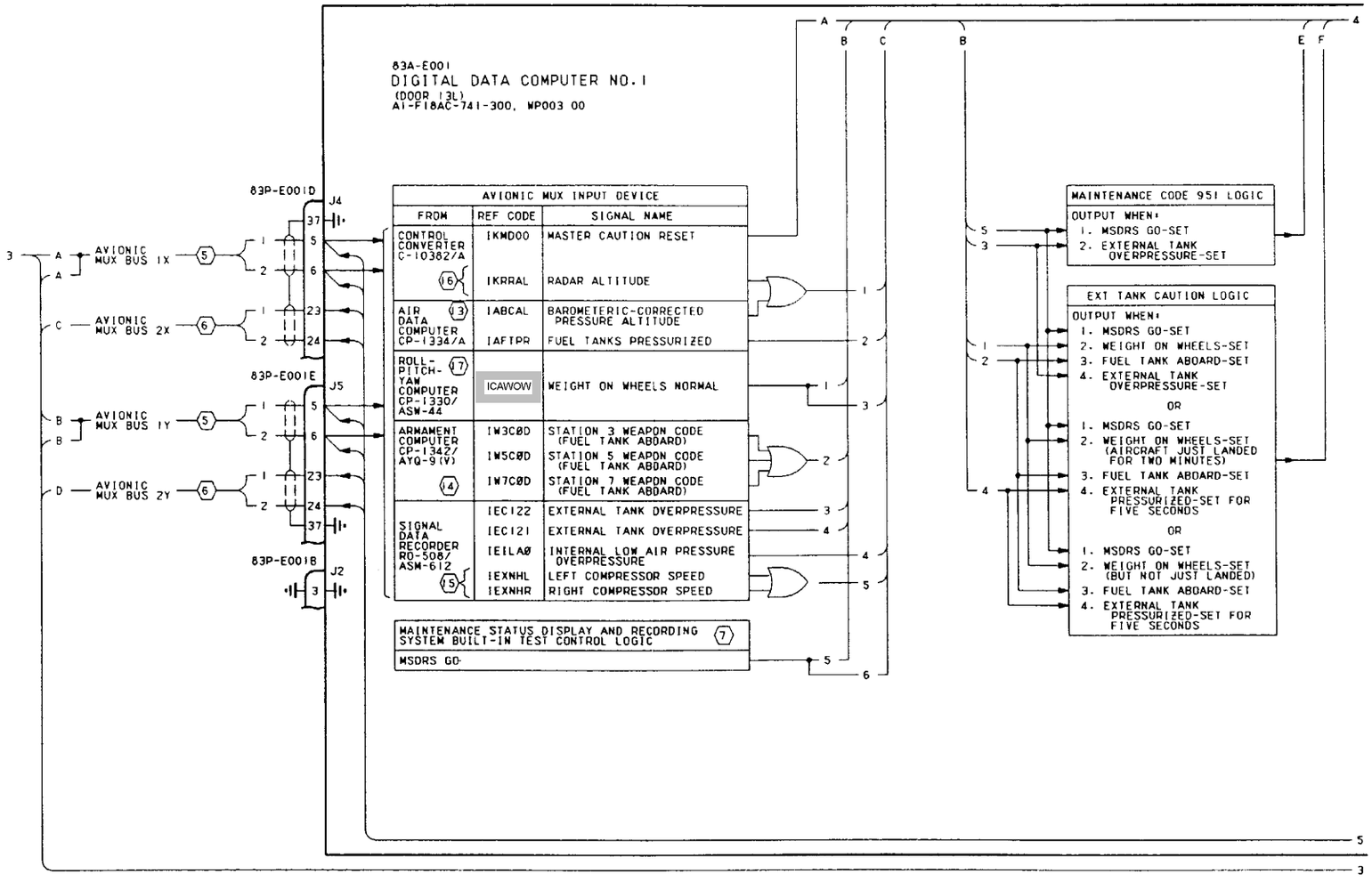
01100301

Figure 3. Fuel Pressurization and Vent System Maintenance Code and Caution Schematic (Sheet 1)



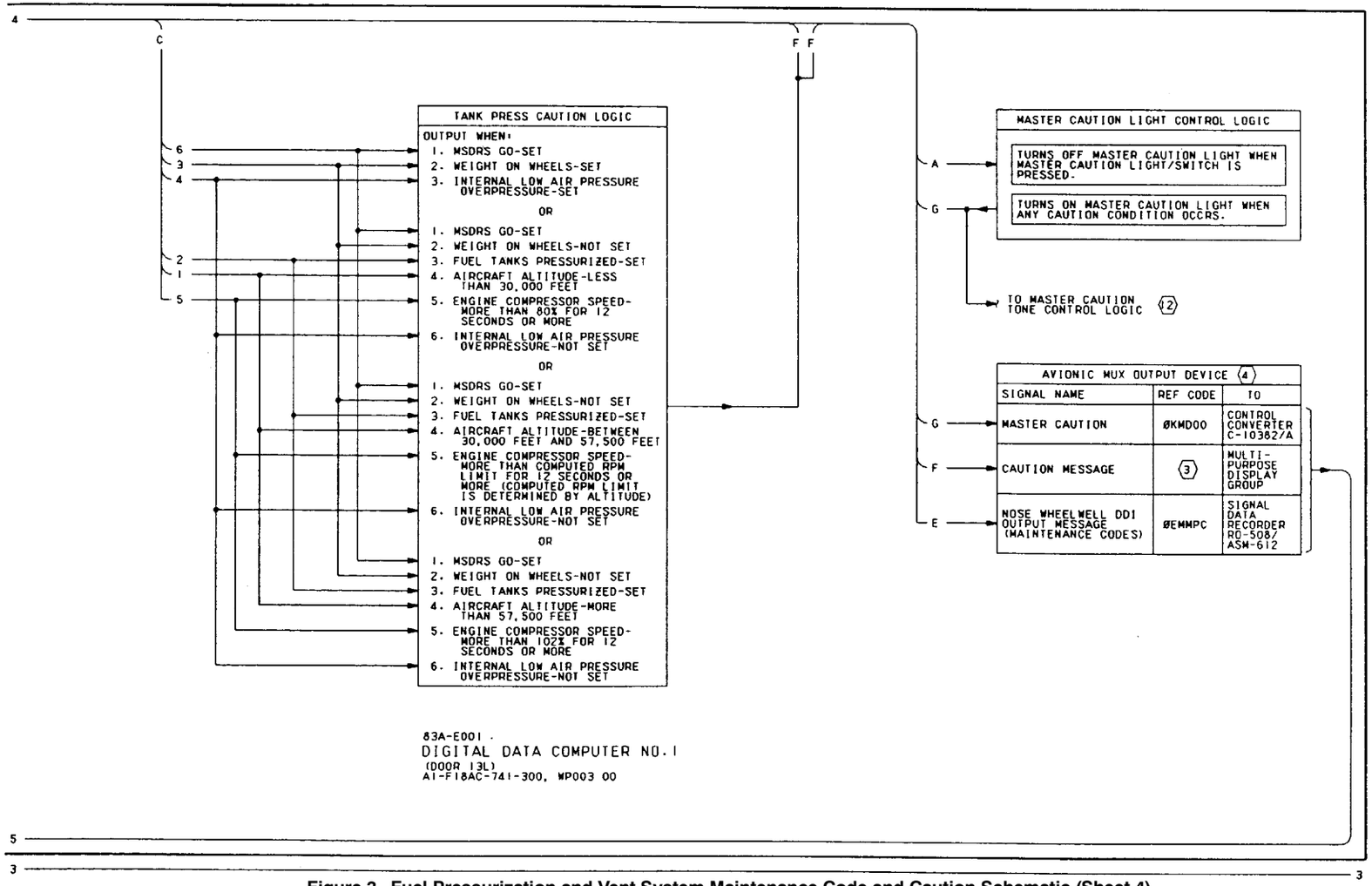
01100302

Figure 3. Fuel Pressurization and Vent System Maintenance Code and Caution Schematic (Sheet 2)



01100303

Figure 3. Fuel Pressurization and Vent System Maintenance Code and Caution Schematic (Sheet 3)



01100304

Figure 3. Fuel Pressurization and Vent System Maintenance Code and Caution Schematic (Sheet 4)

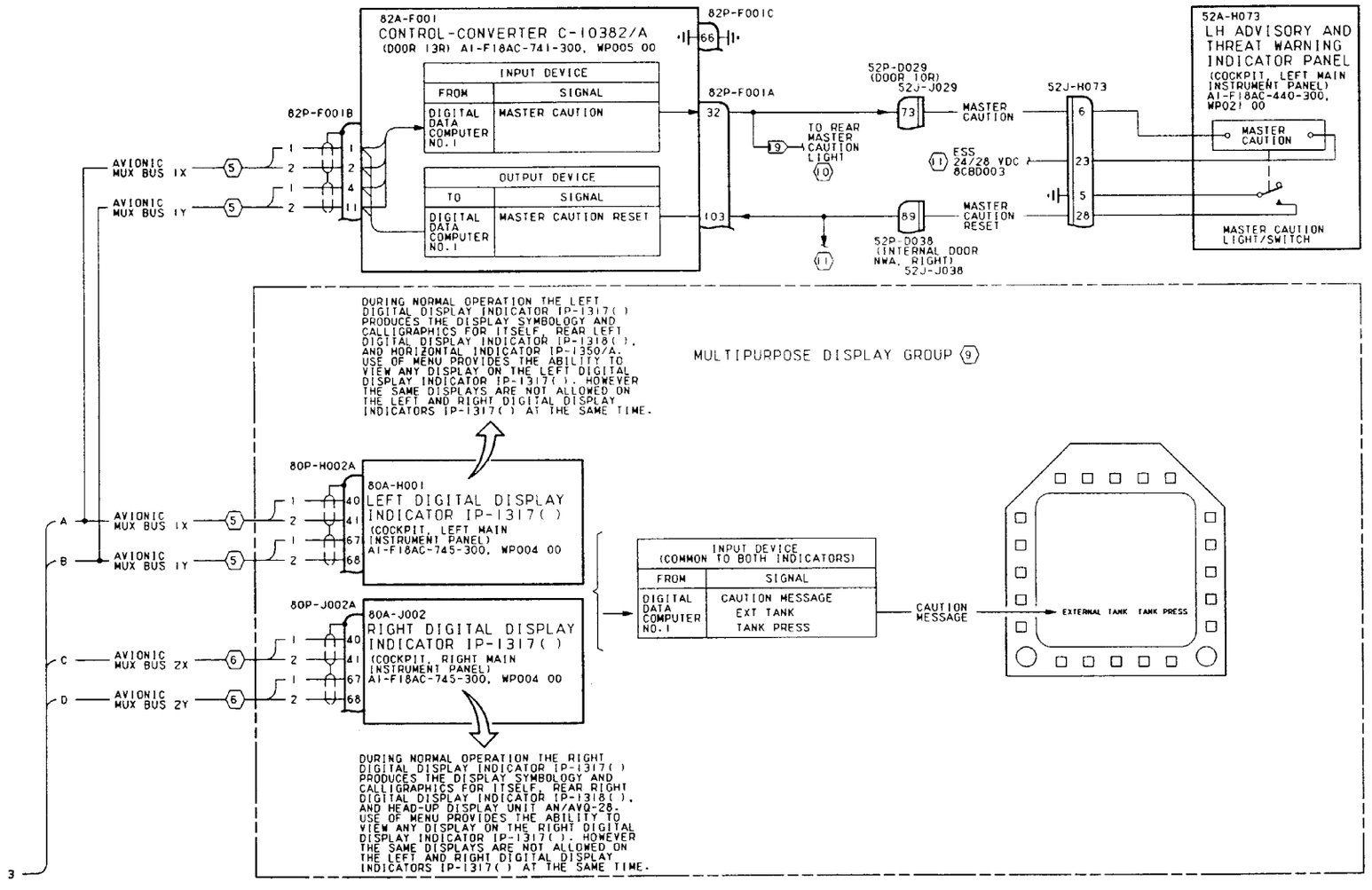
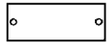


Figure 3. Fuel Pressurization and Vent System Maintenance Code and Caution Schematic (Sheet 5)

LEGEND

1. NONSTANDARD SYMBOLS

⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 2B.



TELELIGHT

⊠ IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR. SEE NOTE 2E.

2. CONTINUITY TESTS:

A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.

B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.

C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RX1 SCALE.

D. WHEN TESTING CONTINUITY, TEST FOR:

(1) SHORTS TO GROUND.

(2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.

(3) SHORTS BETWEEN SHIELD AND CONDUCTORS.

(4) SHIELD CONTINUITY.

E. WHEN ELECTRICAL POWER IS OFF, 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS ON CONNECTORS (IDENTIFIED BY ⊠). MAKE SURE MULTIMETER LEADS/JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY.

(3) DISPLAY REF CODES ARE NOT SHOWN. IF DISPLAY MALFUNCTION EXISTS, TRANSFER DISPLAY TO ANOTHER INDICATOR. IF MALFUNCTION EXISTS ON MORE THAN ONE INDICATOR, TROUBLESHOOT USING A1-F18AC-OLD-000 INPUT REF CODES. IF MALFUNCTION EXISTS ONLY ON ONE INDICATOR, TROUBLESHOOT BY DOING DISPLAY TEST, A1-F18AC-745-200, WP004 00 (F/A-18A) OR WP005 00 (TF/A-18).

(4) FOR LOGIC DIAGRAMS RELATING TO REF CODE, REFER TO A1-F18AC-OLD-000. FOR MEMORY INSPECT ACCESS LOCATION RELATING TO REF CODE, REFER TO A1-F18AC-FIM-100.

(5) AVIONIC MUX CHANNEL 1 SCHEMATIC, A1-F18AC-741-500, WP005 00.

(6) AVIONIC MUX CHANNEL 2 SCHEMATIC, A1-F18AC-741-500, WP005 00.

(7) MAINTENANCE STATUS DISPLAY AND RECORDING SYSTEM BUILT-IN TEST SCHEMATIC, A1-F18AC-580-500, WP012 00.

(8) FUEL PRESSURIZATION AND VENT SCHEMATIC, THIS WP.

(9) THE MULTIPURPOSE DISPLAY GROUP IS MADE UP OF THE LEFT DIGITAL DISPLAY INDICATOR IP-1317( ), RIGHT DIGITAL DISPLAY INDICATOR IP-1317( ), HEAD-UP DISPLAY UNIT AN/AVQ-28, HORIZONTAL INDICATOR IP-1350/A, AND ON F/A-18B THE REAR LEFT DIGITAL DISPLAY INDICATOR IP-1318( ), REAR RIGHT DIGITAL DISPLAY INDICATOR IP-1318( ), AND REAR CENTER DIGITAL DISPLAY INDICATOR IP-1318( ). FOR MULTIPURPOSE DISPLAY GROUP, REFER TO A1-F18AC-745-500.

(10) REAR COCKPIT CAUTION LIGHTS SCHEMATIC, A1-F18AC-440-500, WP007 00.

(11) COCKPIT CAUTION LIGHTS SCHEMATIC, A1-F18AC-440-500, WP006 00.

(12) INTERCOMMUNICATION AND AUDIO SYSTEM FUNCTIONAL SCHEMATIC, A1-F18AC-600-500, WP013 00.

(13) AIR DATA COMPUTER SYSTEM FUNCTIONAL SCHEMATIC, A1-F18AC-560-500, WP004 00.

(14) EXTERNAL FUEL TANK SCHEMATIC, A1-F18AC-740-500, WP012 00.

(15) OVRSPD CAUTIONS AND MAINTENANCE CODES SCHEMATIC, A1-F18AC-270-500, WP010 00.

(16) ELECTRONIC ALTIMETER SYSTEM FUNCTIONAL SCHEMATIC, A1-F18AC-600-500, WP023 00.

(17) CROSS CHANNEL/MUX BUS/DISPLAYS FUNCTIONAL SCHEMATIC, A1-F18AC-570-500, WP021 01.

(18) F/A-18A.

(19) F/A-18B.

(20) F/A-18B PLUG AND JACK POSITIONS ARE REVERSED FROM POSITION SHOWN.

01100306

Figure 3. Fuel Pressurization and Vent System Maintenance Code and Caution Schematic (Sheet 6)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL QUANTITY GAGING SYSTEM

Title	WP Number
Fuel Quantity Gaging System Component Locator	012 01
Fuel Quantity Gaging System 161353 THRU 161359	012 02
Fuel Quantity Gaging System 161360 AND UP	012 03
Fuel Quantity Gaging System BIT Cautions and Advisory Schematic	012 04

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL QUANTITY GAGING SYSTEM

COMPONENT LOCATOR

Reference Material

None

Alphabetical Index

Subject	Page No.
Fuel Quantity Gaging System Component Locator, Figure 1	2

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 53	30 Nov 89	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve, and Raised Inverted Baffle (ECP-MDA-F/A-18-00055)	1 Aug 86	-
F/A-18 AFC 48	13 Jul 90	Automatic AC Bus Isolation, Incorporation of (ECP-MDA-F/A-18-00121)	15 Jan 88	-

NOMENCLATURE	INDEX NO.	REF DES
EXTERNAL TANK FUEL QUANTITY TRANSMITTER	21	5A-Y062
FUEL QUANTITY GAGING INTERMEDIATE DEVICE	4	5A-F014
FUEL QUANTITY REPEATER INDICATOR	2	5A-K015
FUEL QTY INDICATOR	1	5A-H013
LEFT CENTER WING FUEL QUANTITY TRANSMITTER	18	5A-U038
LEFT INBOARD WING FUEL QUANTITY TRANSMITTER	20	5A-U039
LEFT OUTBOARD WING FUEL QUANTITY TRANSMITTER	19	5A-U037
NO. 1 FUEL TANK AFT FUEL QUANTITY TRANSMITTER	11	5A-F029
NO. 1 FUEL TANK FORWARD FUEL QUANTITY TRANSMITTER	10	6 5A-F028 7 5A-E028
NO. 2 CIRCUIT BREAKER PANEL ASSEMBLY	9	52A-D024
NO. 2 FUEL TANK FUEL QUANTITY TRANSMITTER	8	5A-R030
NO. 3 FUEL TANK FUEL QUANTITY TRANSMITTER	7	5A-R031
NO. 3 RELAY PANEL ASSEMBLY	3	52A-E059
NO. 4 FUEL TANK AFT FUEL QUANTITY TRANSMITTER	17	5A-R034
NO. 4 FUEL TANK CENTER FUEL QUANTITY TRANSMITTER	16	5A-R033
NO. 4 FUEL TANK FORWARD FUEL QUANTITY TRANSMITTER	15	5A-R032
NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY	6	52A-C057
NO. 9 RELAY PANEL ASSEMBLY	22	52A-C161
RIGHT CENTER WING FUEL QUANTITY TRANSMITTER	14	5A-V042
RIGHT INBOARD WING FUEL QUANTITY TRANSMITTER	12	5A-V043
RIGHT OUTBOARD WING FUEL QUANTITY TRANSMITTER	13	5A-V041
SIGNAL DATA CONVERTER CV-3493/ASM-812	5	85A-N002

LEGEND

1. AIRCRAFT CONNECTOR LOCATION ARE SHOWN IN A1-F18A( )-WDM-000.

2 161353 THRU 161761 BEFORE F18 AFC 053.

3 161924 AND UP, ALSO 161353 THRU 161761 AFTER F18 AFC 053

4 161924 THRU 161987 BEFORE F18 AFC 48

5 162394 AND UP, ALSO 161924 THRU 161987 AFTER F18 AFC 48.

6 F/A-18A

7 F/A-18B

12010101

Figure 1. Fuel Quantity Gaging System Component Locator (Sheet 1)

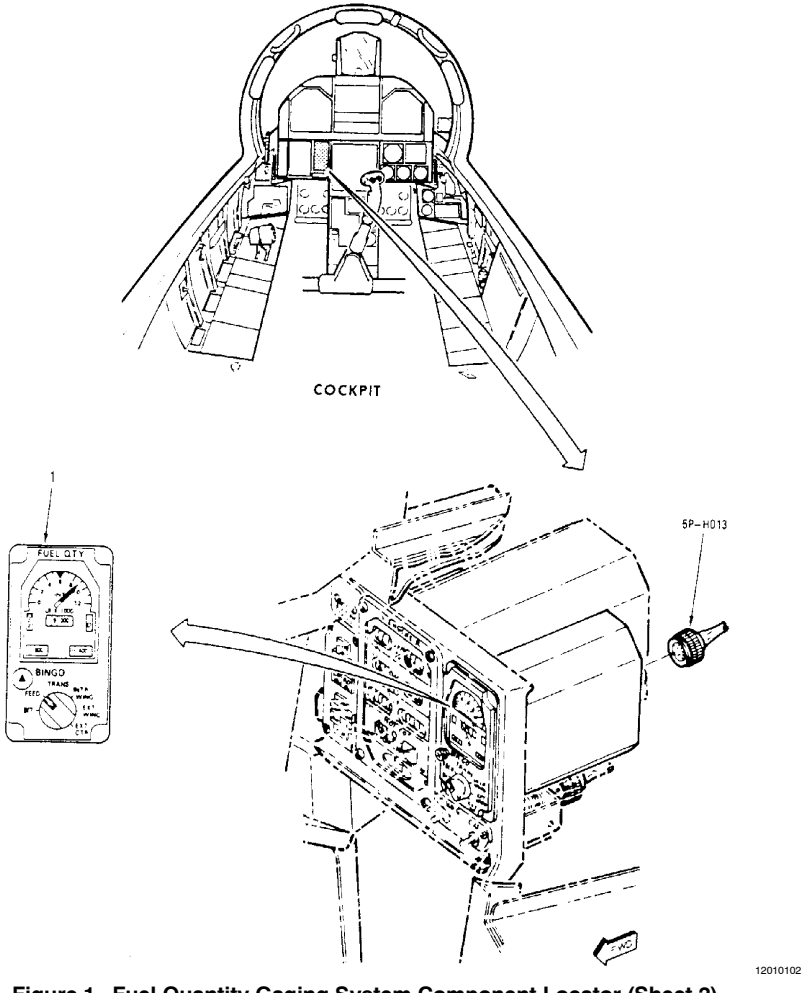


Figure 1. Fuel Quantity Gaging System Component Locator (Sheet 2)

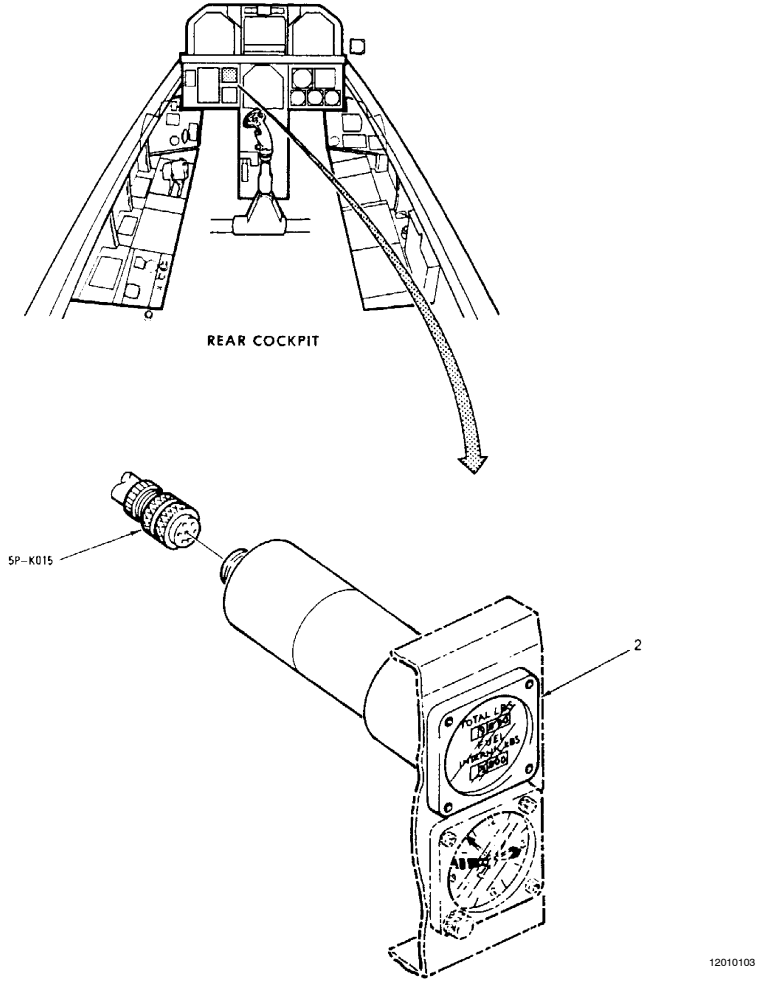


Figure 1. Fuel Quantity Gaging System Component Locator (Sheet 3)

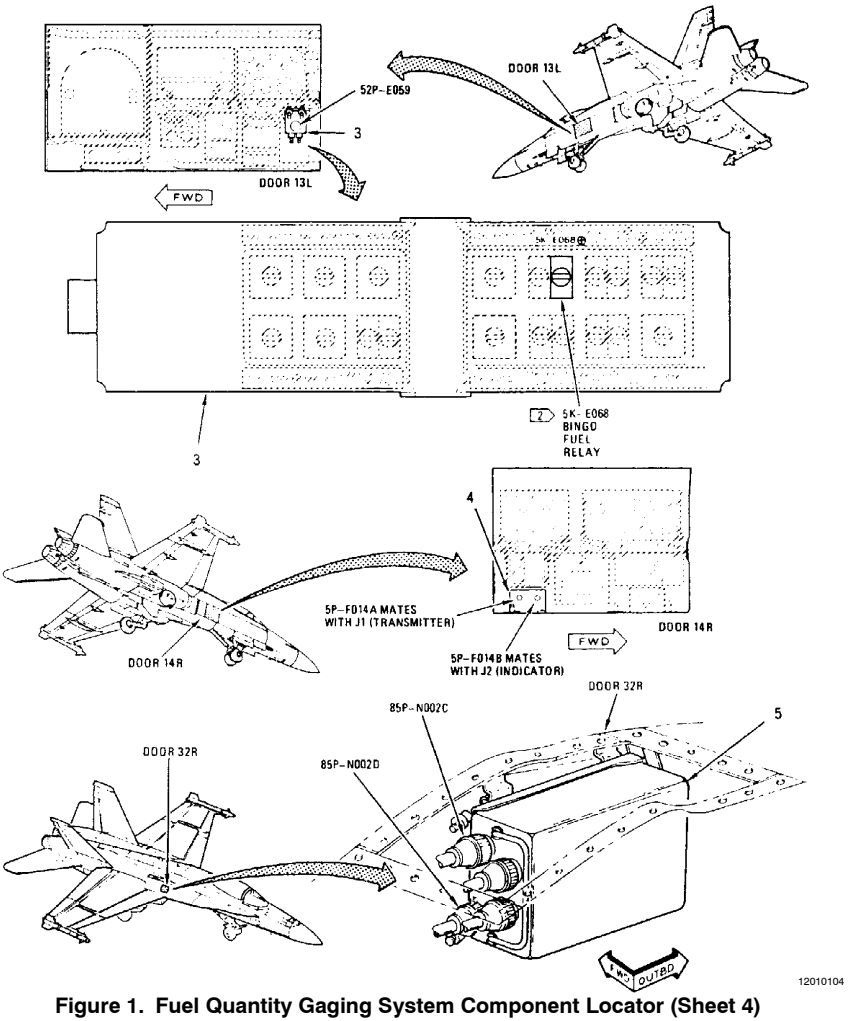
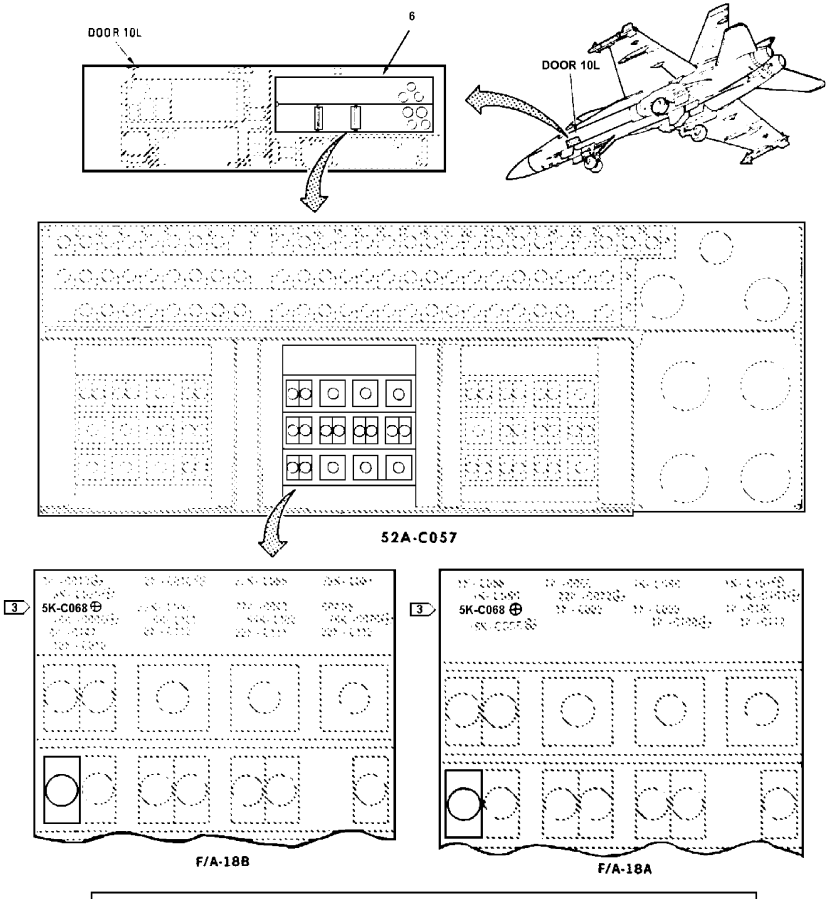


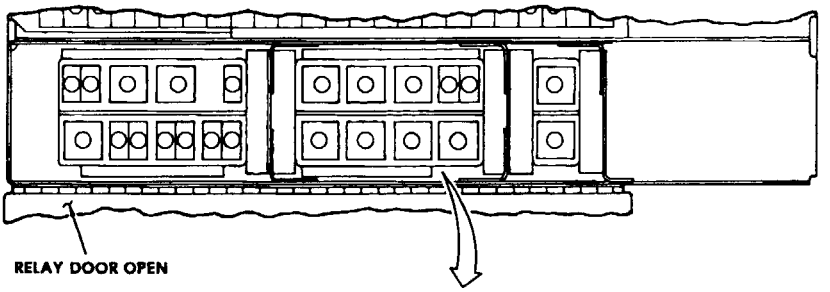
Figure 1. Fuel Quantity Gaging System Component Locator (Sheet 4)

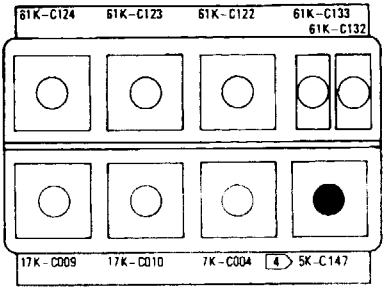


52A-C057 NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
	3 5K-C068	BINGO FUEL RELAY	

12010105

Figure 1. Fuel Quantity Gaging System Component Locator (Sheet 5)



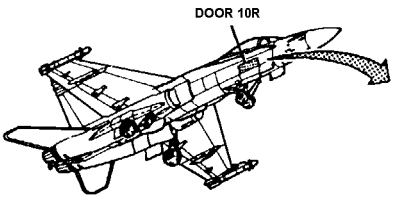


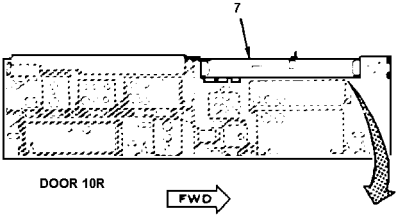
VIEW WITH RELAY DOOR OPEN

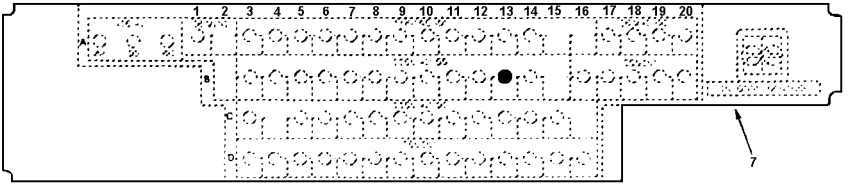
52A-C057 NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
	4 5K-C147	FUEL LOW LEVEL WARNING TIMER RELAY	

12010106

Figure 1. Fuel Quantity Gaging System Component Locator (Sheet 6)

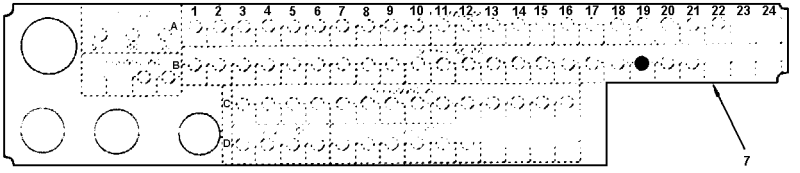






52A-D024 161353 THRU 161359

52A-D024	NO. 2 CIRCUIT BREAKER PANEL ASSEMBLY		
ZONE	REF DES	NOMENCLATURE	BUS
B13	5CBD004	FUEL QUAN IND	R115VACØB



52A-D024 161360 AND UP

52A-D024	NO. 2 CIRCUIT BREAKER PANEL ASSEMBLY		
ZONE	REF DES	NOMENCLATURE	BUS
B19	5CBD004	FUEL QUAN IND	R115VACØB

12010107

Figure 1. Fuel Quantity Gaging System Component Locator (Sheet 7)

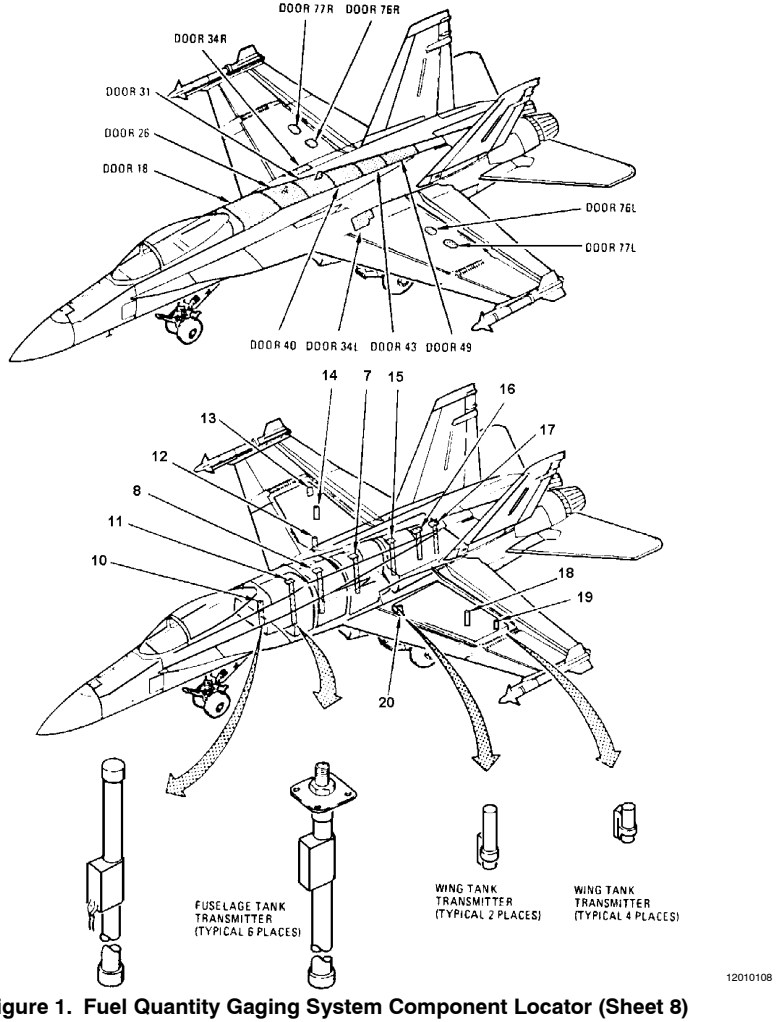


Figure 1. Fuel Quantity Gaging System Component Locator (Sheet 8)

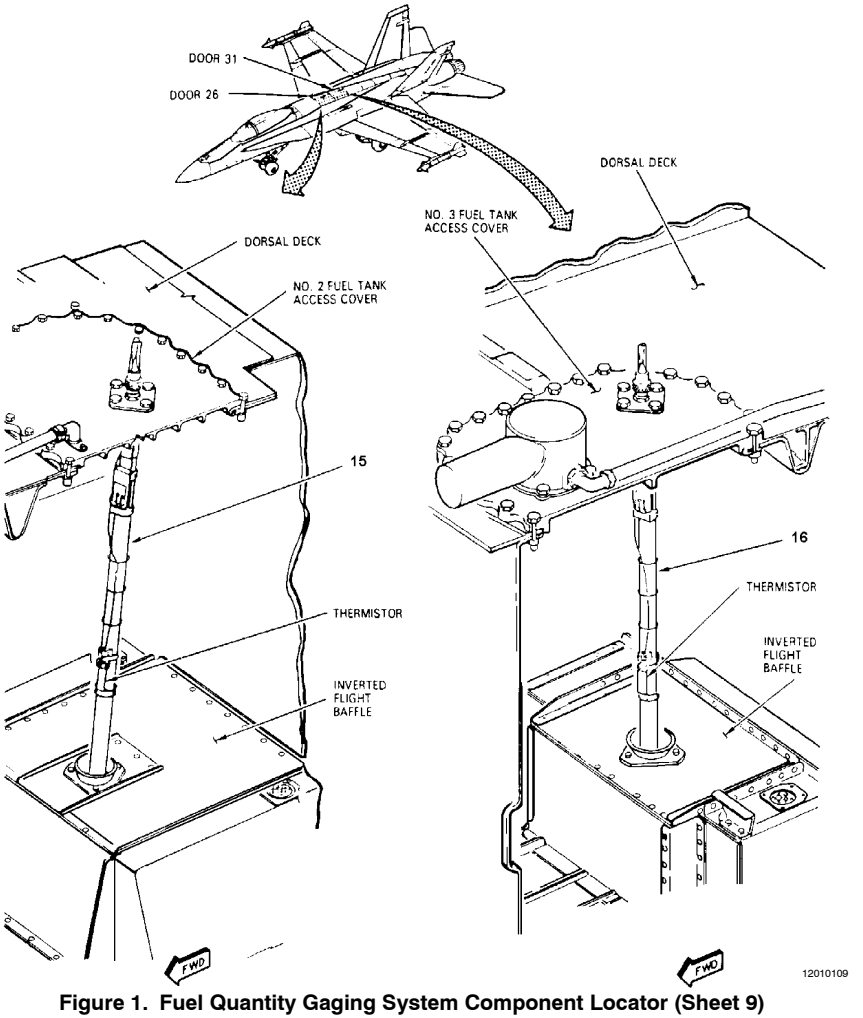
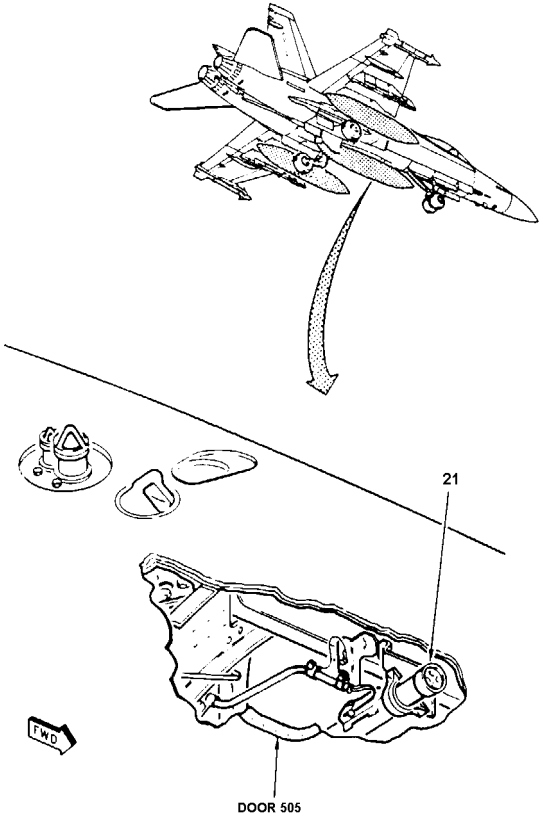


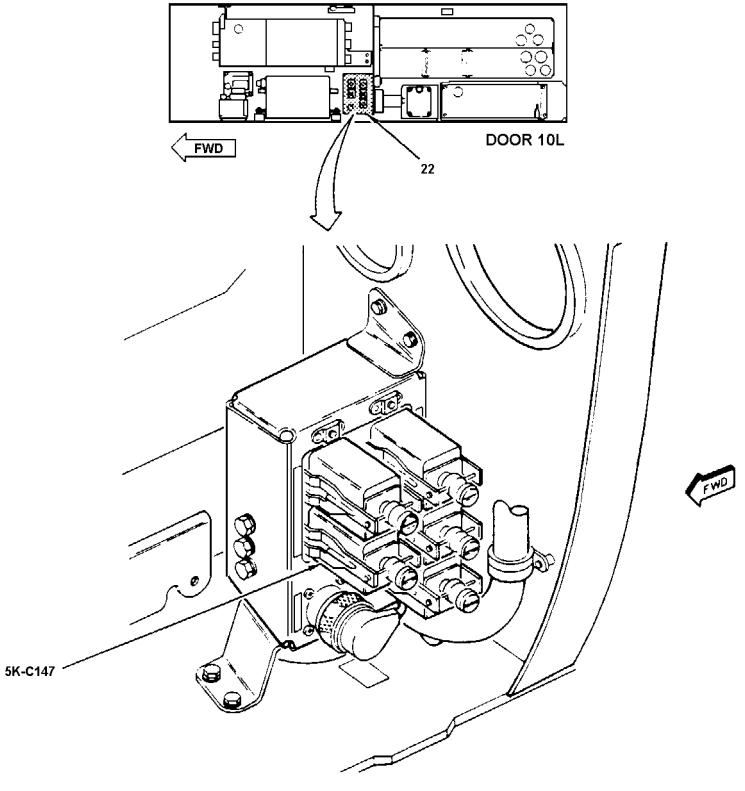
Figure 1. Fuel Quantity Gaging System Component Locator (Sheet 9)



EXTERNAL FUEL TANK (TYPICAL)

12010110

Figure 1. Fuel Quantity Gaging System Component Locator (Sheet 10)



52A-C159 NO. 9 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
	5 5K-C147	FUEL LOW LEVEL WARNING TIMER RELAY	

12010111

Figure 1. Fuel Quantity Gaging System Component Locator (Sheet 11)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL QUANTITY GAGING SYSTEM

EFFECTIVITY: 161353 THRU 161359

Reference Material

None

Alphabetical Index

Subject	Page No.
Fuel Quantity Gaging System Schematic - 161353 THRU 161359, Figure 1	3

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve, and Raised Inverted Baffle (ECP MDA-F/A-18-00055)	1 Aug 86	-
F/A-18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA-F/A-18-00072C1)	1 Nov 86	-

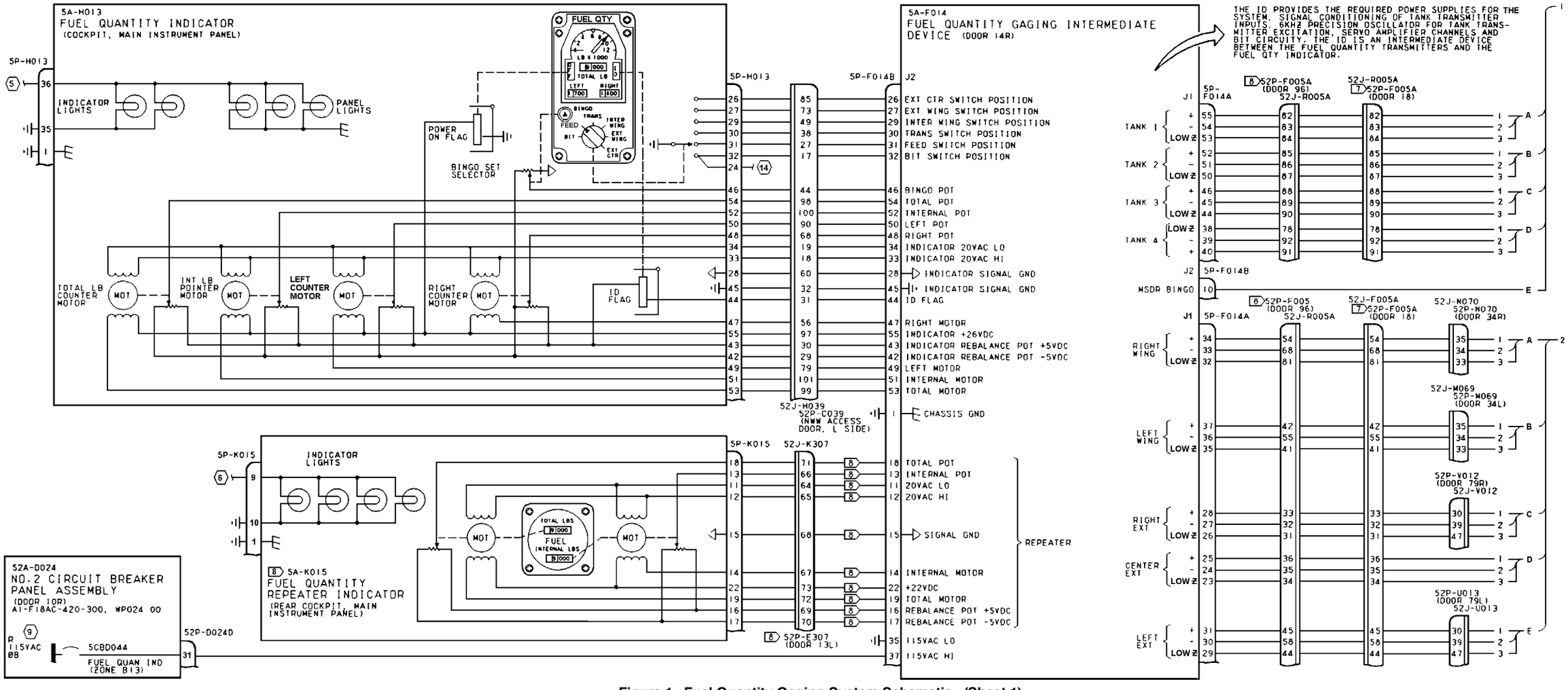


Figure 1. Fuel Quantity Gaging System Schematic. (Sheet 1)

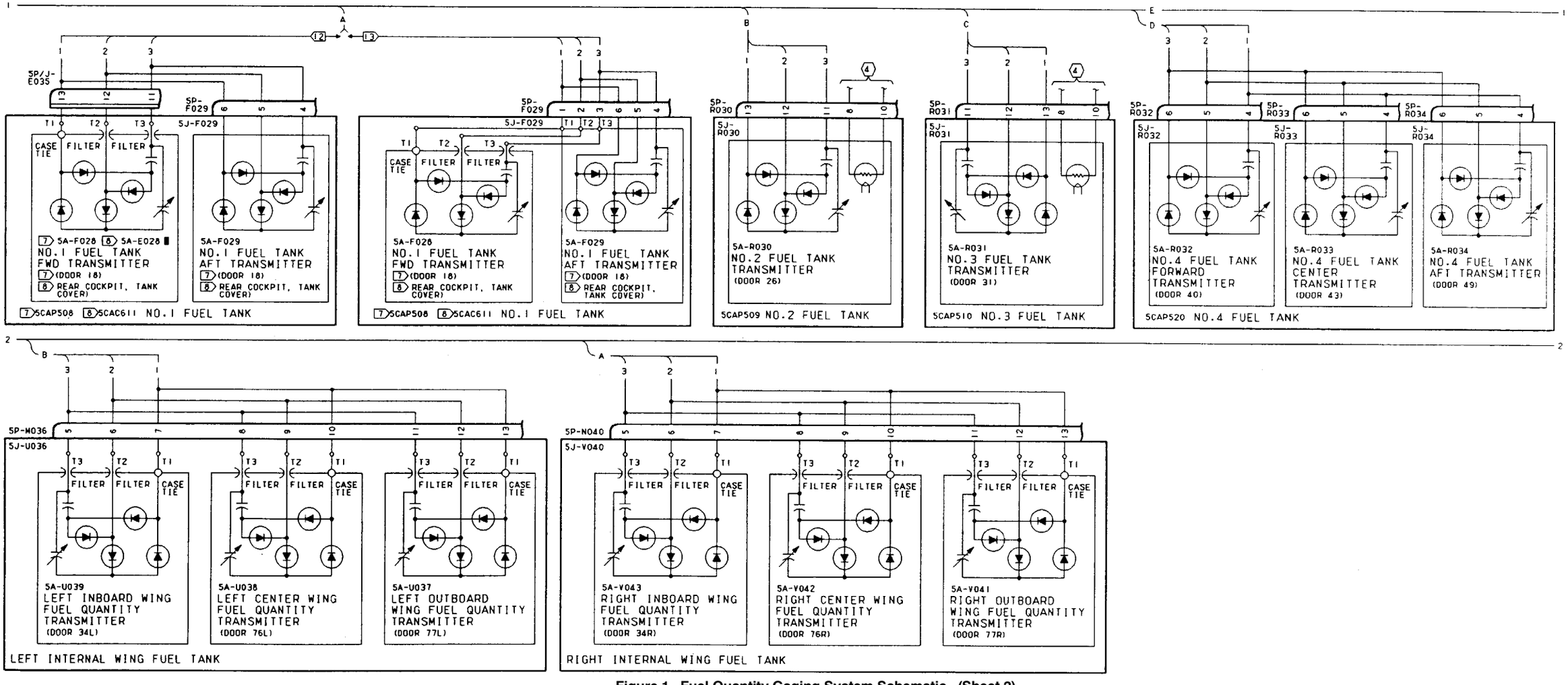


Figure 1. Fuel Quantity Gaging System Schematic. (Sheet 2)

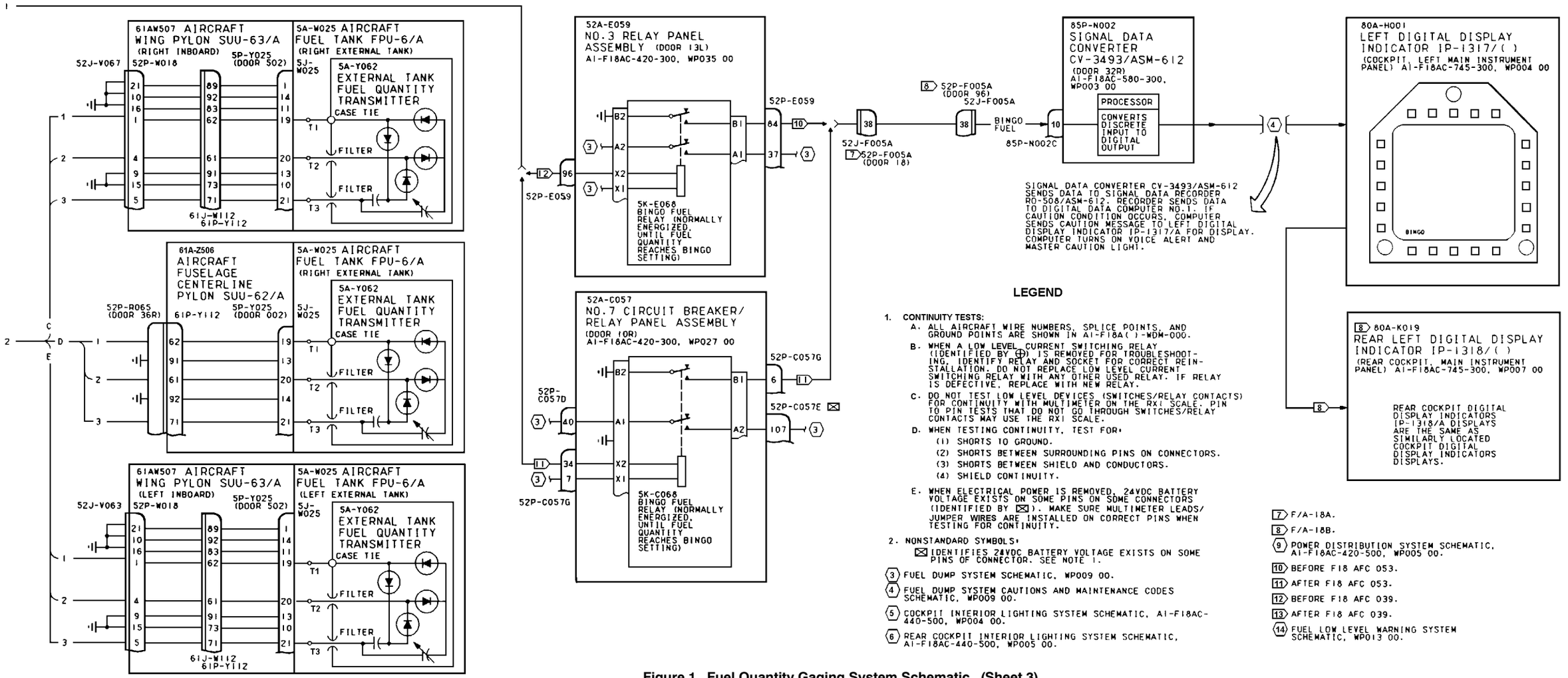


Figure 1. Fuel Quantity Gaging System Schematic. (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL QUANTITY GAGING SYSTEM

EFFECTIVITY: 161360 AND UP

Reference Material

None

Alphabetical Index

Subject	Page No.
Fuel Quantity Gaging System Schematic - 161360 AND UP, Figure 1	3

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve, and Raised Inverted Baffle (ECP MDA-F/A-18-00055)	1 Aug 86	-
F/A-18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA-F/A-18-00072C1)	1 Nov 86	-

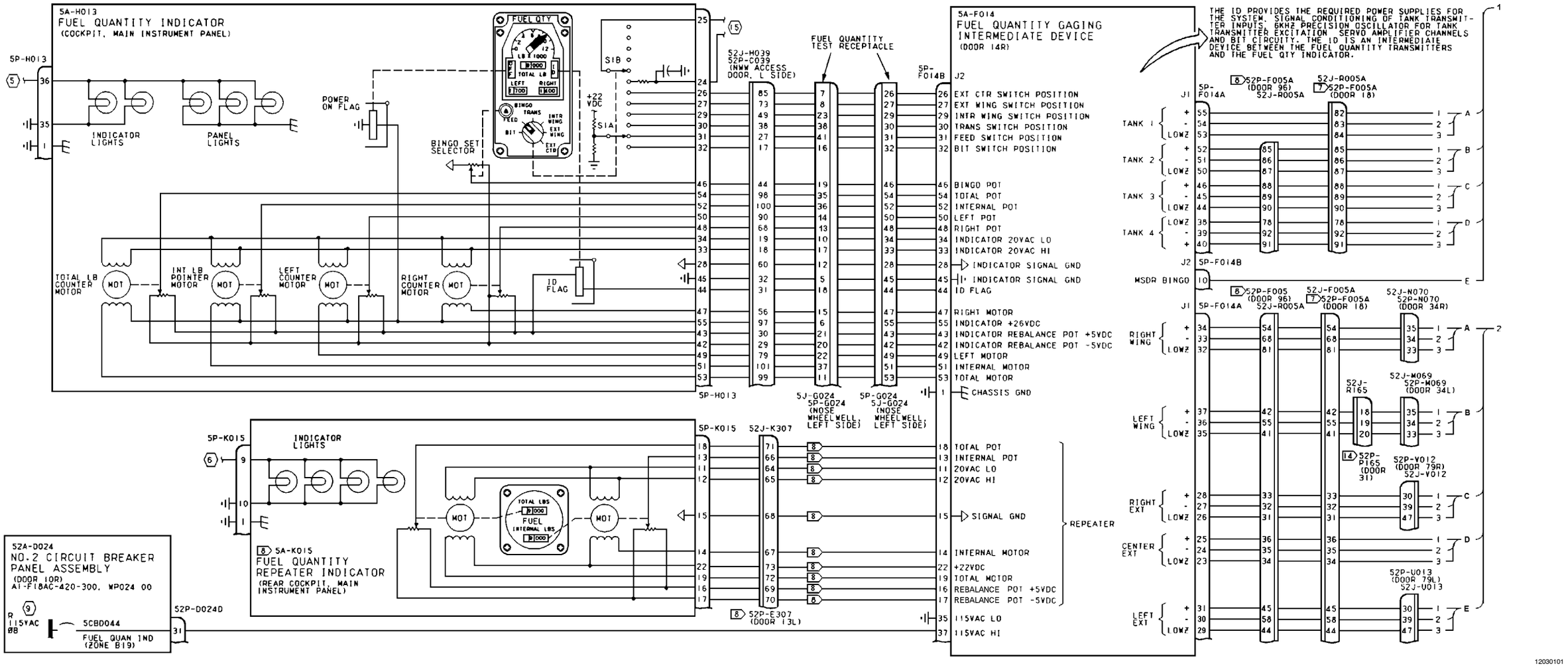
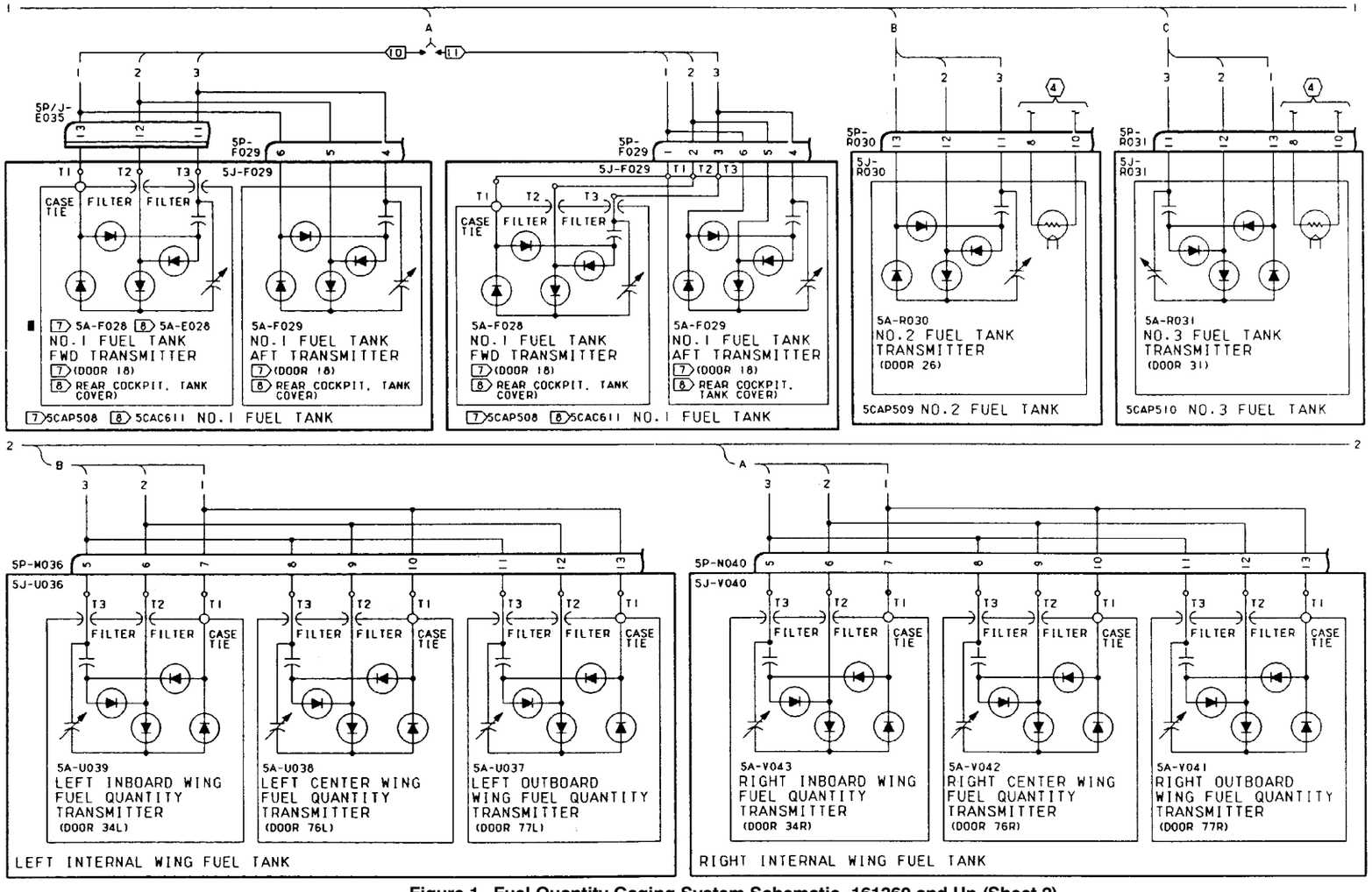
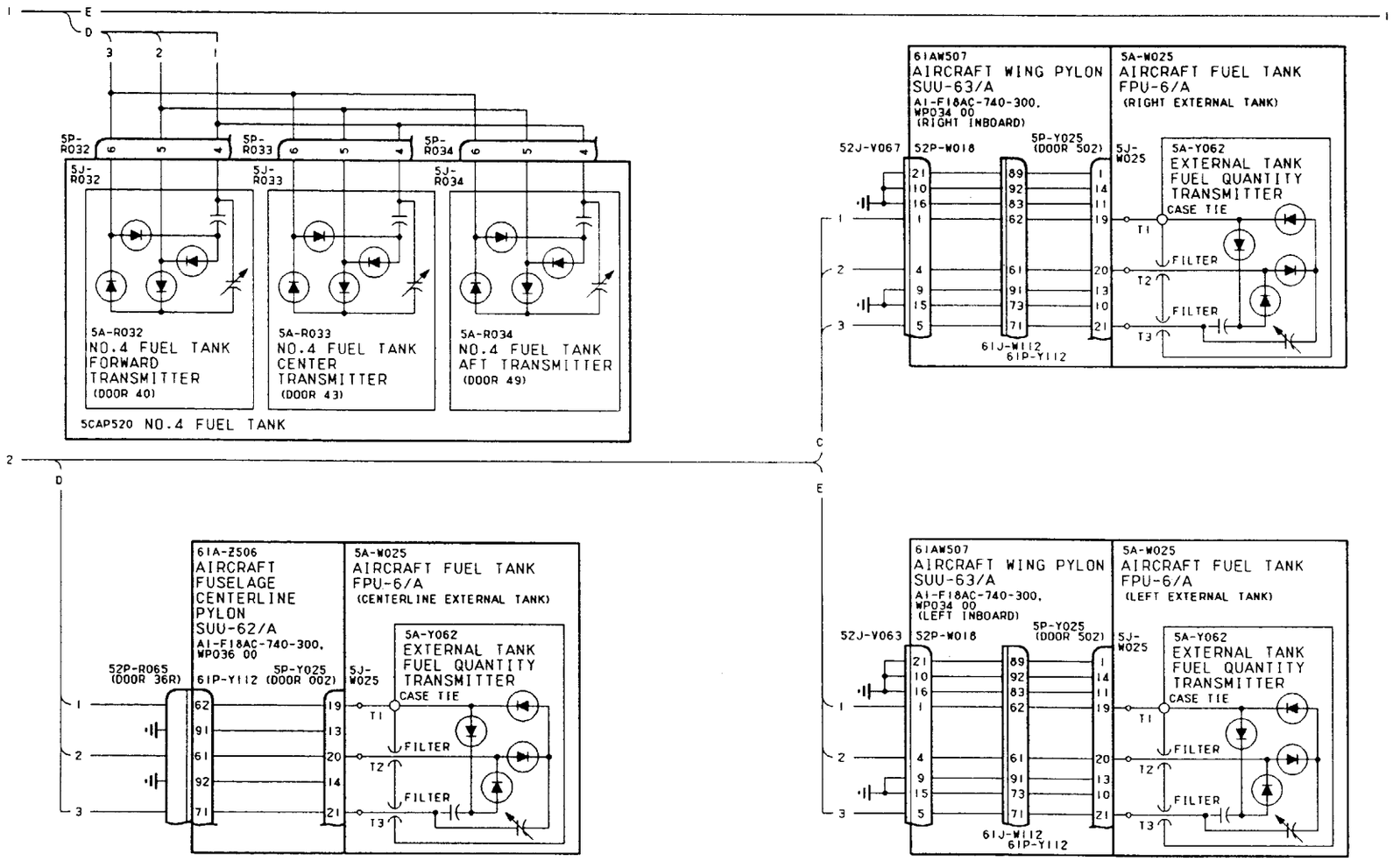


Figure 1. Fuel Quantity Gaging System Schematic -161360 and Up (Sheet 1)



12030102

Figure 1. Fuel Quantity Gaging System Schematic -161360 and Up (Sheet 2)



12030103

Figure 1. Fuel Quantity Gaging System Schematic -161360 and Up (Sheet 3)

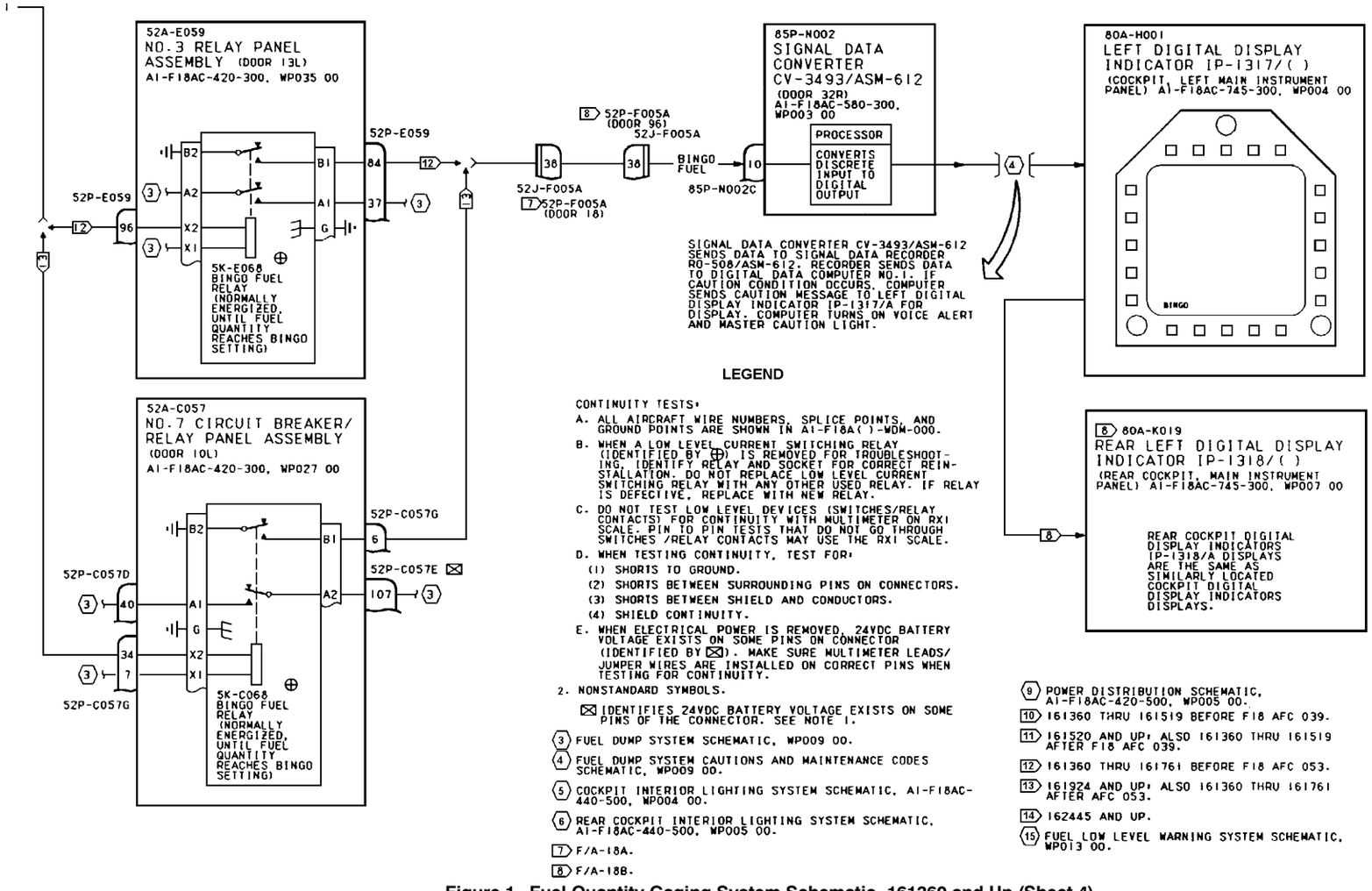


Figure 1. Fuel Quantity Gaging System Schematic -161360 and Up (Sheet 4)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL QUANTITY GAGING SYSTEM

BIT CAUTIONS AND ADVISORY SCHEMATIC

Reference Material

None

Alphabetical Index

Subject **Page No.**

Fuel Quantity Gaging System BIT Cautions and Advisory Schematic, Figure 1 3

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 53	30 Nov 89	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve and Raised Inverted Baffle (ECP-MDA-F/A-18-00055)	1 Aug 86	-
F/A-18 AFC 48	13 Jul 90	Automatic AC Bus Isolation, Incorporation of (ECP MDA-F/A-18-00121)	15 Jan 88	-
F/A-18 AFC 54	2 May 89	Incorporation of Video Recording Set (ECP-MDA-F/A-18-00027)	1 May 92	-

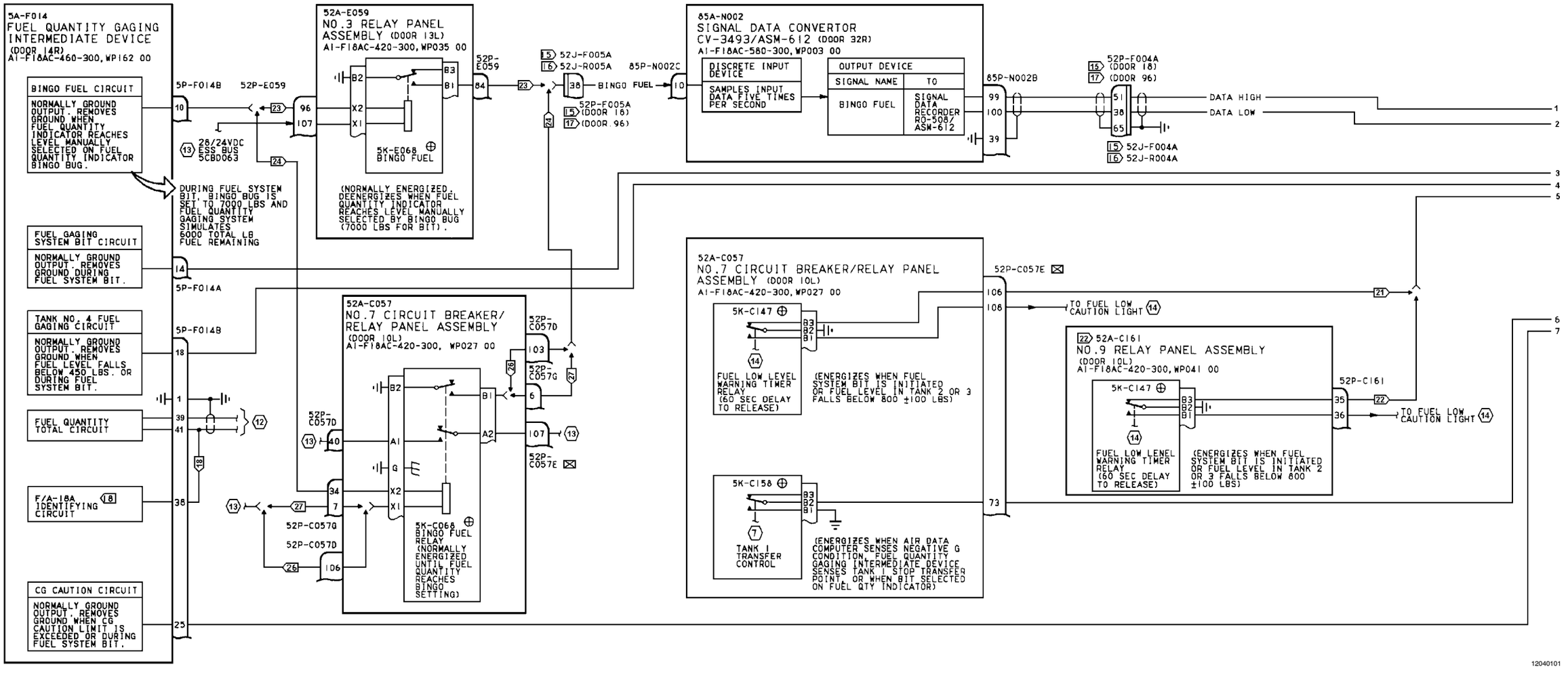


Figure 1. Fuel Quantity Gaging System BIT Cautions and Advisory Schematic (Sheet 1)

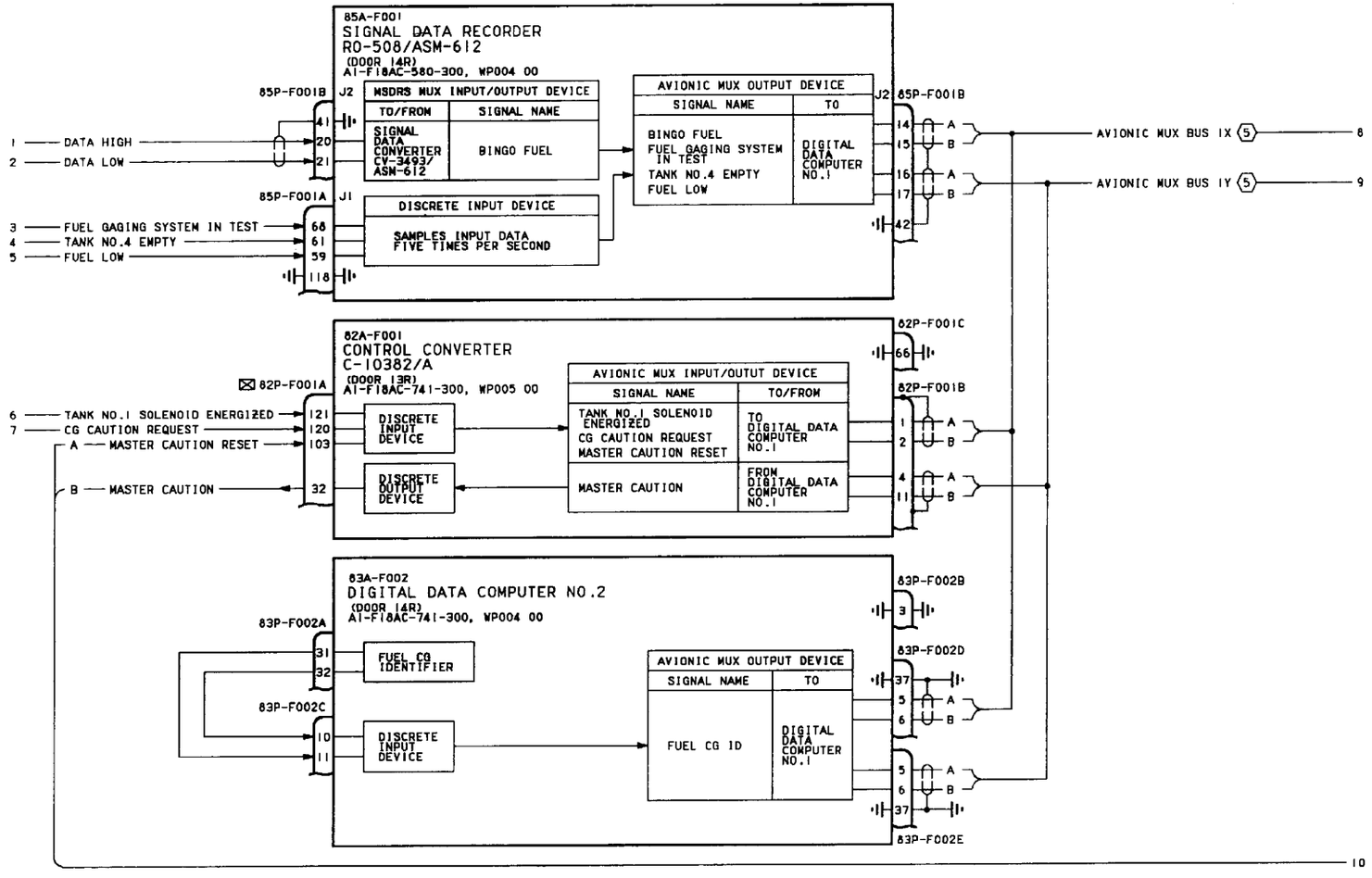
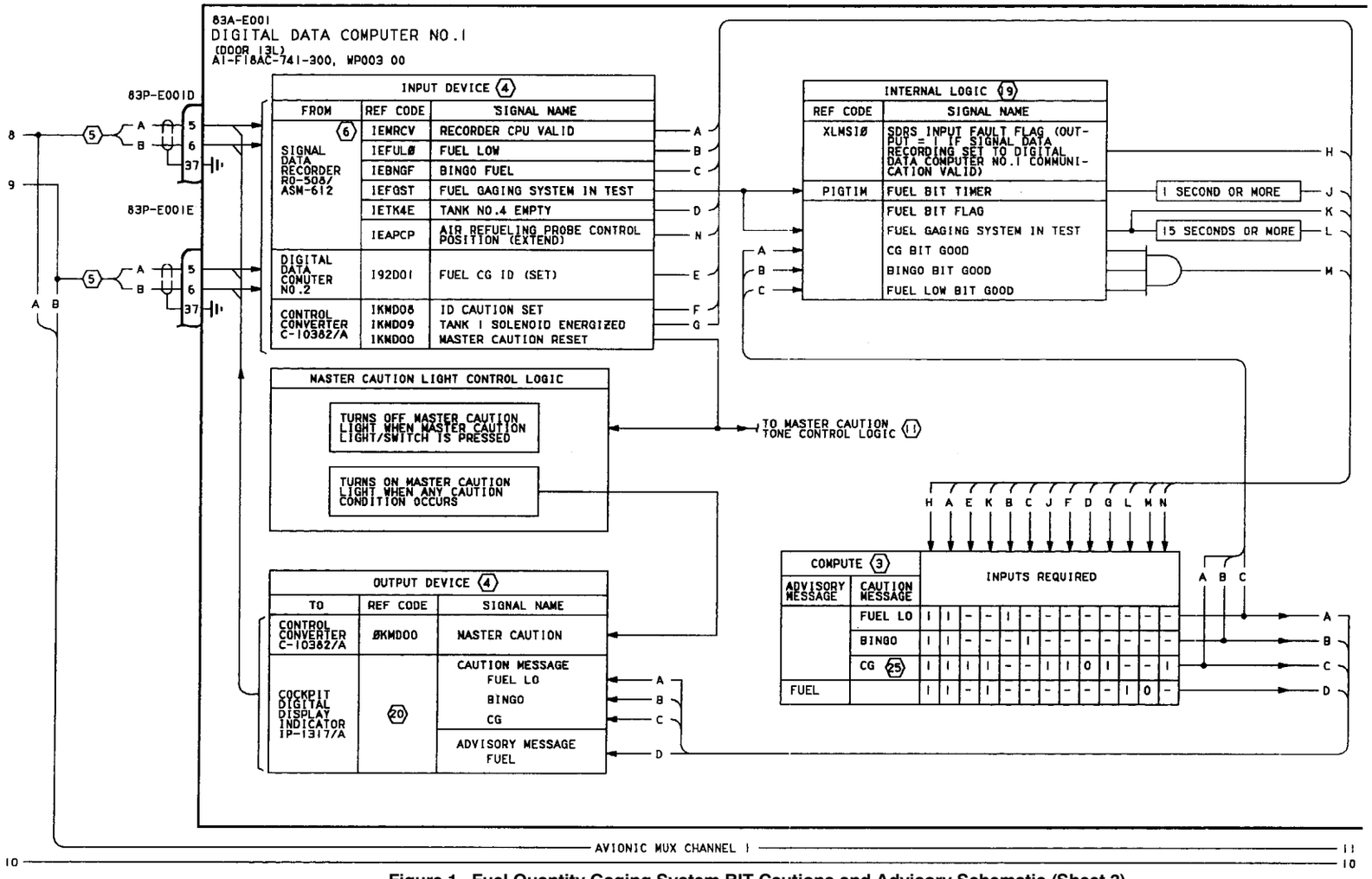
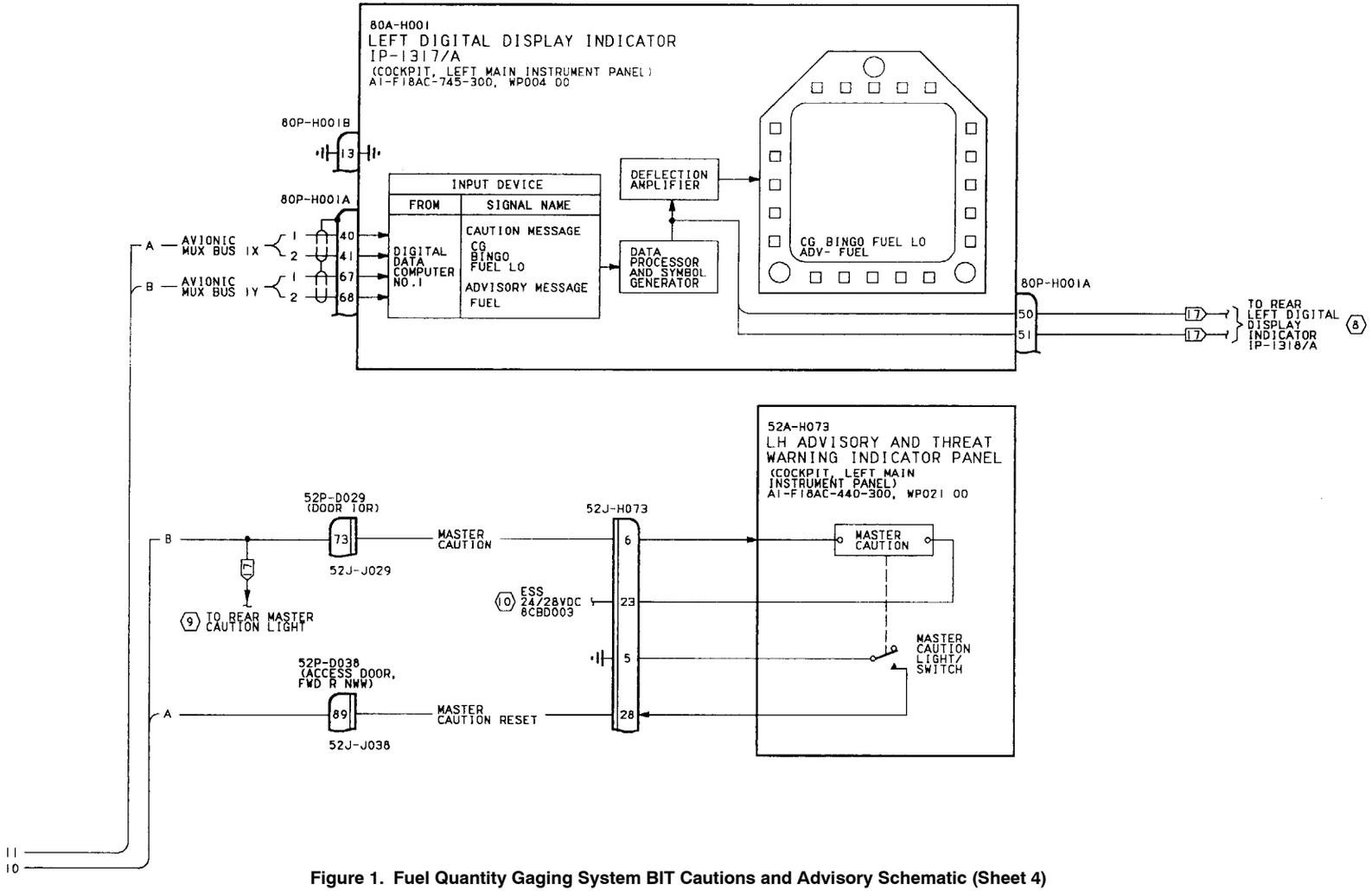


Figure 1. Fuel Quantity Gaging System BIT Cautions and Advisory Schematic (Sheet 2)



12040103

Figure 1. Fuel Quantity Gaging System BIT Cautions and Advisory Schematic (Sheet 3)



12040104

Figure 1. Fuel Quantity Gaging System BIT Cautions and Advisory Schematic (Sheet 4)

LEGEND

1. CONTINUITY TESTS:

   A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.

   B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFFECTIVE, REPLACE WITH NEW RELAY.

   C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RX1 SCALE.

   D. WHEN TESTING TROUBLESHOOTING, TEST FOR:

      (1) SHORTS TO GROUND.

      (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.

      (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.

      (4) SHIELD CONTINUITY.

   E. WHEN ELECTRICAL POWER IS OFF, 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS ON CONNECTORS (IDENTIFIED BY ⊠). MAKE SURE MULTIMETER LEADS/JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY.

2. NONSTANDARD SYMBOLS

   ⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1.

   ○ ○ TELELIGHT

   ⊠ IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR. SEE NOTE 1.

(3) EXPLANATION OF MATRIX

   A. COMPUTE COLUMN LISTS THE SIGNAL OUTPUT.

   B. INPUTS REQUIRED ARE USED TO DEVELOP THE COMPUTED SIGNAL OUTPUT.

   C. SIGNAL OUTPUT IS READ HORIZONTALLY. EACH HORIZONTAL LINE IS AN INDEPENDENT SIGNAL OUTPUT.

   D. INTERPRET MATRIX TABLE AS INDICATED:

      (1) ONE (1) INDICATES THIS INPUT AS NAMED MUST BE THERE TO GET THE OUTPUT.

      (2) ZERO (0) INDICATES THIS INPUT AS NAMED MUST NOT BE THERE TO GET THE OUTPUT.

      (3) DASH (-) INDICATES THE OUTPUT DOES NOT DEPEND ON THIS INPUT.

(4) FOR LOGIC DIAGRAMS RELATING TO REF CODE, REFER TO A1-F18AC-OLD-000 FOR MEMORY INSPECT ACCESS LOCATION RELATING TO REF CODE, REFER TO A1-F18AC-FIM-100.

(5) AVIONIC MUX CHANNEL 1 SCHEMATIC, A1-F18AC-741-500, WP003 00.

(6) MAINTENANCE STATUS DISPLAY AND RECORDING SYSTEM BUILT-IN TEST SCHEMATIC, A1-F18AC-580-500, WP012 00.

(7) CG CONTROL SYSTEM SCHEMATIC, WP014 00.

(8) MULTIPUROSE DISPLAY GROUP INTERCONNECT SCHEMATIC F/A-18B, A1-F18AC-745-500, WP007 00.

(9) REAR COCKPIT CAUTION LIGHTS SYSTEM SCHEMATIC, A1-F18AC-440-500, WP007 00.

(10) COCKPIT CAUTION LIGHTS SYSTEM SCHEMATIC, A1-F18AC-440-500, WP006 00.

(11) INTERCOMMUNICATION AND AUDIO SYSTEM FUNCTIONAL SCHEMATIC, A1-F18AC-600-500, WP013 00.

(12) INTERNAL FUEL TRANSFER SYSTEM MAINTENANCE CODE SCHEMATIC, WP007 00.

(13) FUEL DUMP SYSTEM SCHEMATIC, WP009 00.

(14) FUEL LOW LEVEL WARNING SYSTEM SCHEMATIC, WP013 00.

(15) F/A-18A.

(16) F/A-18B PLUG AND JACK POSITIONS ARE REVERSED FROM POSITION SHOWN.

(17) F/A-18B.

(18) F/A-18A 161520 AND UP.

(19) REF CODES USED FOR THESE COMPUTATIONS ARE MISSION COMPUTER INTERNAL MNEMONICS. TO LOCATE INTERNAL REF CODES IN A1-F18AC-OLD-000, USE THE LOGIC DIAGRAMS FOR THE INPUT/OUTPUT REF CODES.

(20) DISPLAY REF CODES ARE NOT SHOWN. IF DISPLAY MALFUNCTION EXISTS, TRANSFER DISPLAY TO ANOTHER INDICATOR. IF MALFUNCTION EXISTS ON MORE THAN ONE INDICATOR, TROUBLESHOOT USING A1-F18AC-OLD-000 INPUT REF CODES. IF MALFUNCTION EXISTS ONLY ON ONE INDICATOR, TROUBLESHOOT BY DOING DISPLAY TEST, A1-F18AC-745-200, WP004 00 (F/A-18A) ON WP005 00 (F/A-18B).

(21) 161924 THRU 161987 BEFORE F/A-18 AFC 48.

(22) 162394 AND UP; ALSO 161924 THRU 161987 AFTER F/A-18 AFC 48.

(23) 161353 THRU 161761 BEFORE F/A-18 AFC 053.

(24) 161924 AND UP; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 053.

(25) CG CAUTION ON THIS SCHEMATIC IS ONLY SET DURING FUEL SYSTEM BIT. IF BIT IS INITIATED WITH PROBE SWITCH IN EXTEND, CG CAUTION WILL REMAIN DISPLAYED UNTIL PROBE SWITCH IS SET TO RETRACT. FOR CONDITIONS REQUIRED TO SET CG CAUTION DURING NORMAL SYSTEM OPERATION, SEE CG CONTROL SYSTEM CAUTION SCHEMATIC, WP014 03.

(26) 161353 THRU 161528 BEFORE F/A-18 AFC 54.

(27) 161353 THRU 161528 AFTER F/A-18 AFC 54.

12040105

Figure 1. Fuel Quantity Gaging System BIT Cautions and Advisory Schematic (Sheet 5)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL QUANTITY LOW LEVEL WARNING SYSTEM

Title	WP Number
Fuel Quantity Low Level Warning System Component Locator	013 01
Fuel Quantity Low Level Warning System 161353 THRU 161761	013 02
Fuel Quantity Low Level Warning System 161924 AND UP	013 03
Fuel Quantity Low Level Warning System Caution Schematic	013 04

ORGANIZATIONAL MAINTENANCE

FUEL QUANTITY LOW LEVEL WARNING SYSTEM

COMPONENT LOCATOR

Reference Material

None

Alphabetical Index

Subject	Page No.
Fuel Quantity Low Level Warning System Component Locator, Figure 1	2

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve, and Raised Inverted Baffle (ECP MDA-F/A-18-00055)	1 Aug 86	-
F/A-18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA-F/A-18-00072C1)	1 Nov 86	-
F/A-18 AFC 48	-	Automatic AC Bus Isolation, Incorporation of (ECP MDA-F/A-18-00121)	1 Nov 86	-

NOMENCLATURE	INDEX NO.	REF DES
CAUTION LIGHT INDICATOR PANEL	3	8A-J042
FUEL QTY INDICATOR	4	5A-H013
LEFT DIGITAL DISPLAY INDICATOR IP-1317( )	2	85A-G003
LH ADVISORY AND THREAT WARNING INDICATOR PANEL	1	52A-H073
FUEL LOW LEVEL SENSING CONTROL UNIT	10	5A-E053
NO. 2 FUEL TANK FUEL QUANTITY TRANSMITTER	11	5A-R030
NO. 3 FUEL TANK FUEL QUANTITY TRANSMITTER	12	5A-R031
NO. 3 RELAY PANEL ASSEMBLY	8	52A-E059
NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY	7	52A-C057
NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY	6	52A-C159
NO. 9 RELAY PANEL ASSEMBLY	9	52A-C161
REAR CAUTION LIGHT INDICATOR PANEL	5	8A-L127

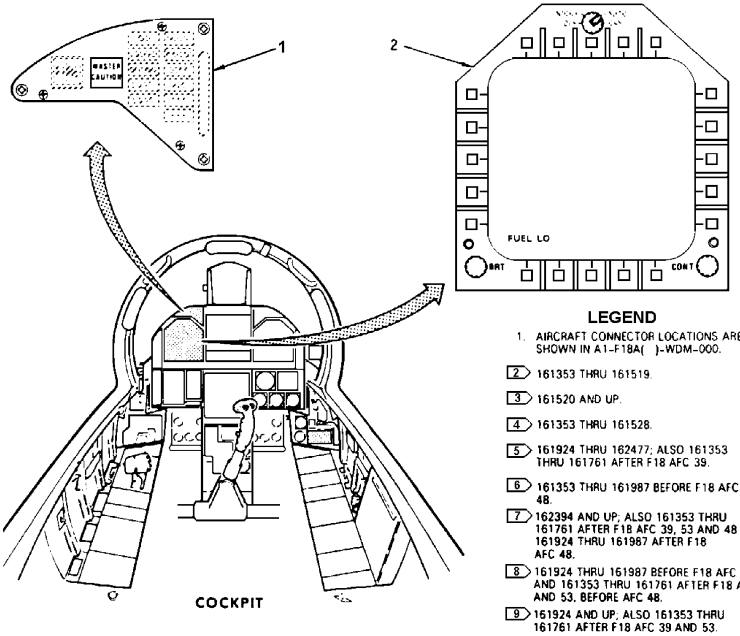


Figure 1. Fuel Quantity Low Level Warning System Component Locator (Sheet 1)

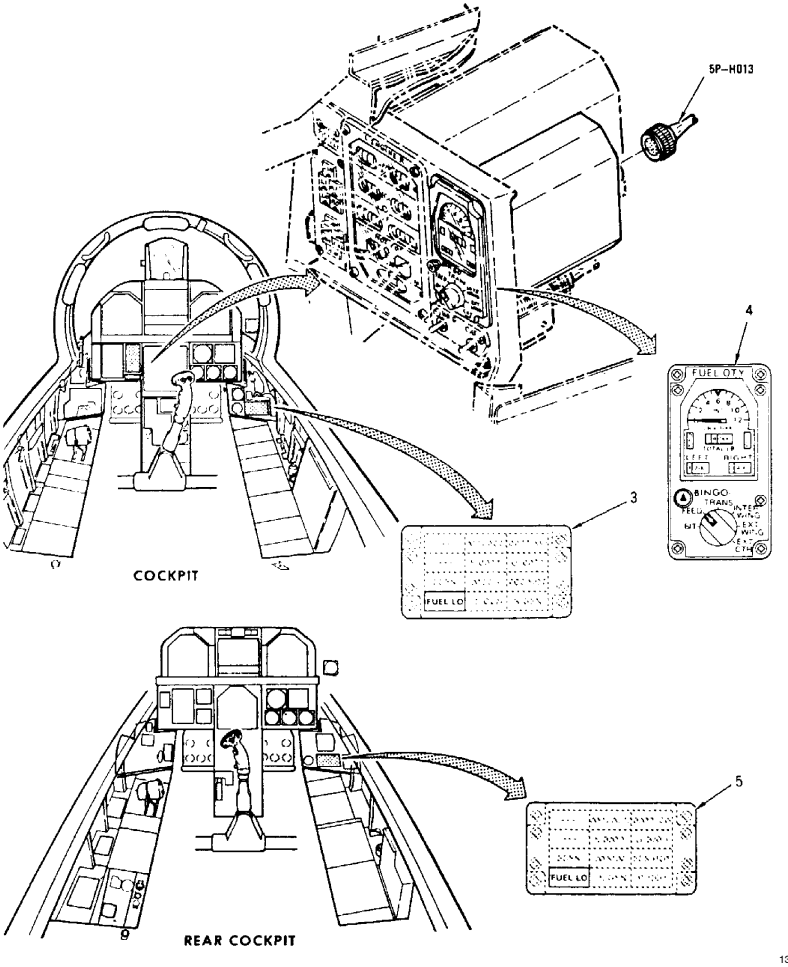
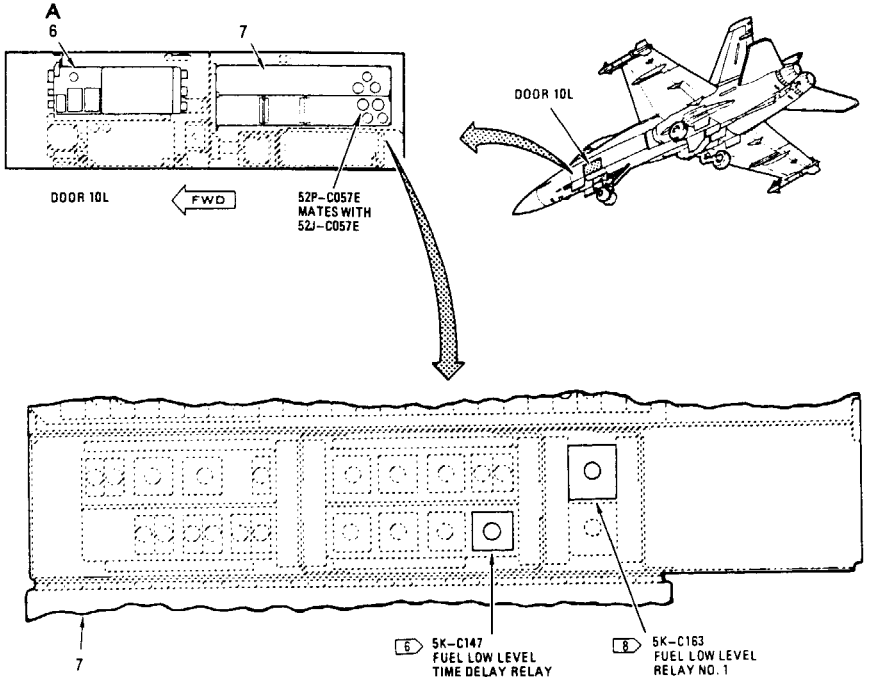


Figure 1. Fuel Quantity Low Level Warning System Component Locator (Sheet 2)

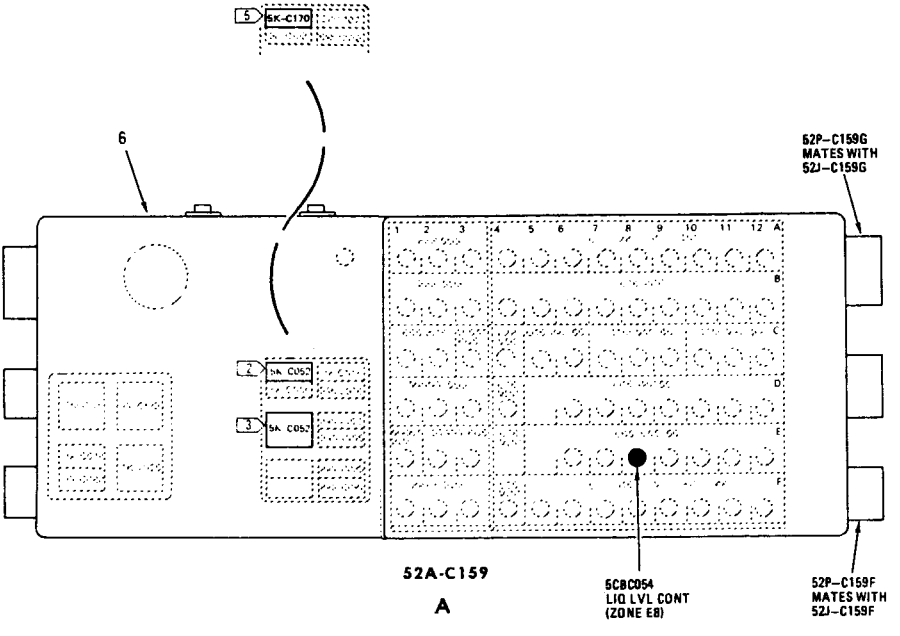


VIEW WITH RELAY DOOR OPEN

52A-C057 NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
	6 5K-C147 8 5K-C163	FUEL LOW LEVEL TIME DELAY RELAY FUEL LOW LEVEL RELAY NO. 1	

13010103

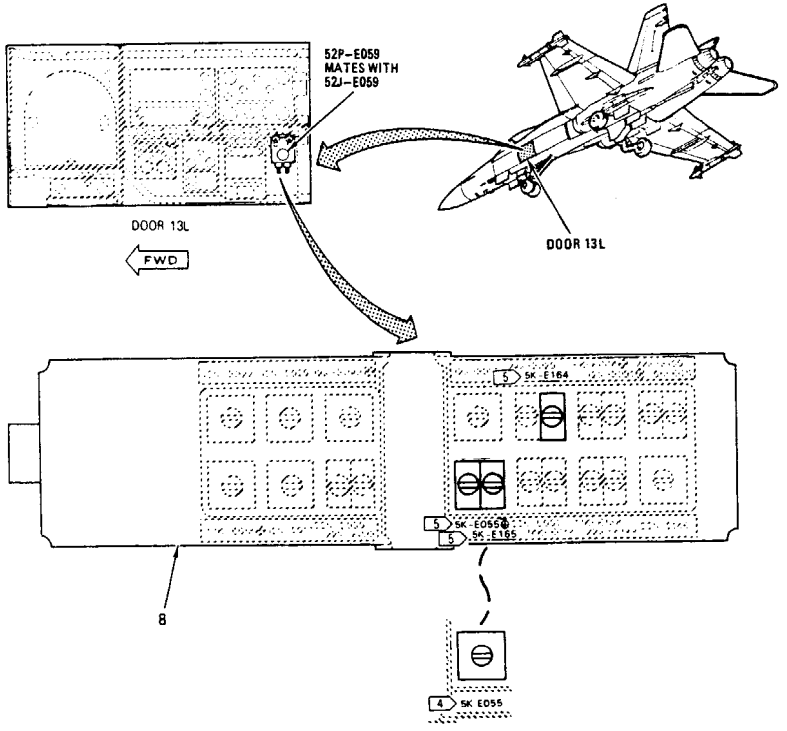
Figure 1. Fuel Quantity Low Level Warning System Component Locator (Sheet 3)



52A-C159 NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
E8	5CBC054 5K-C052 5 5K-C170	LIQ LVL CONT FUEL LOW LEVEL RELAY NO. 2 FUEL LOW LEVEL RELAY NO. 3	L 115VAC ϕ B

13010104

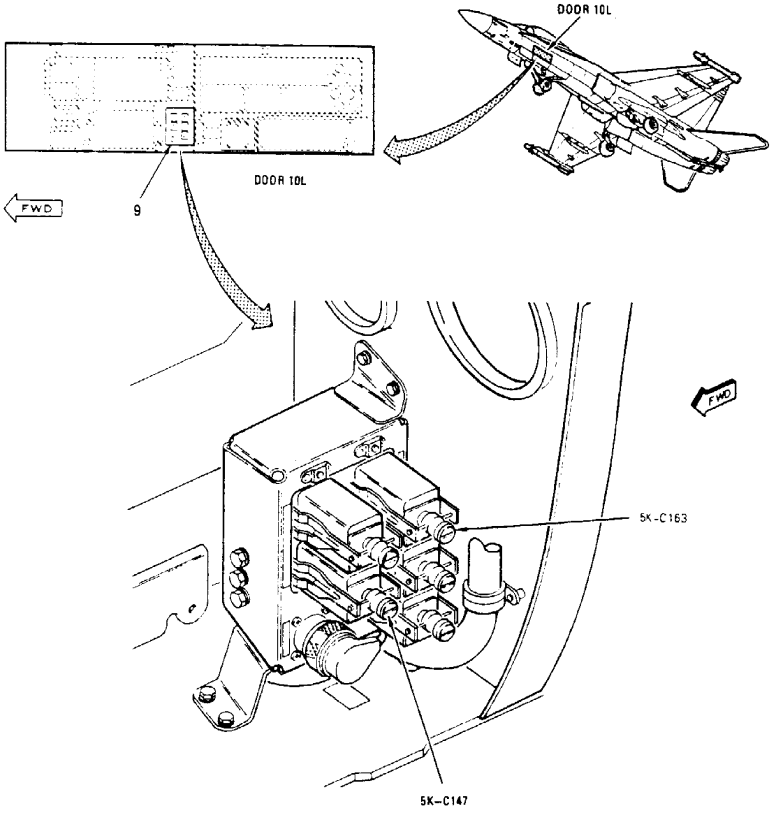
Figure 1. Fuel Quantity Low Level Warning System Component Locator (Sheet 4)



52A-E059	NO. 3 RELAY PANEL ASSEMBLY		
ZONE	REF DES	NOMENCLATURE	PURPOSE
	9 5K-E055 9 5K-E164 9 5K-E165	FUEL LOW LEVEL BIT RELAY NO. 1 FUEL LOW LEVEL BIT RELAY NO. 2 FUEL LOW LEVEL BIT RELAY NO. 3	

13010105

Figure 1. Fuel Quantity Low Level Warning System Component Locator (Sheet 5)



52A-C161		NO. 9 RELAY PANEL ASSEMBLY	
ZONE	REF DES	NOMENCLATURE	BUS
	(7) 5K-C147	FUEL LOW LEVEL WARNING TIMER RELAY	
	(7) 5K-C163	FUEL LOW LEVEL RELAY NO. 1	

13010106

Figure 1. Fuel Quantity Low Level Warning System Component Locator (Sheet 6)

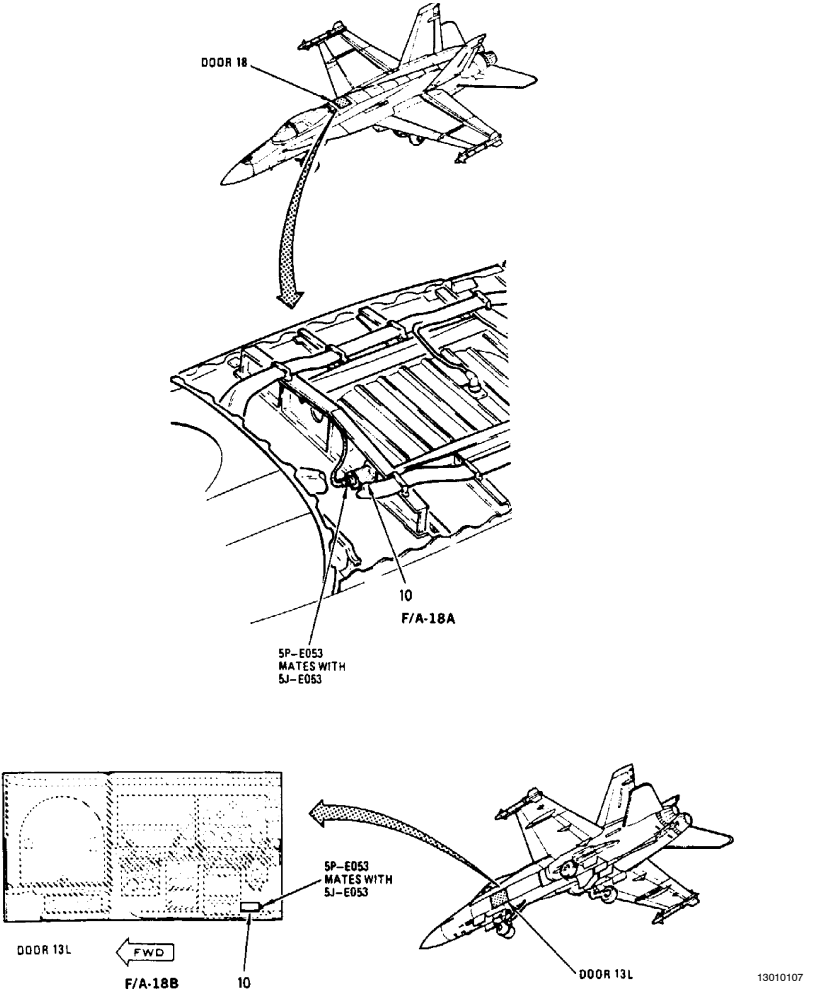
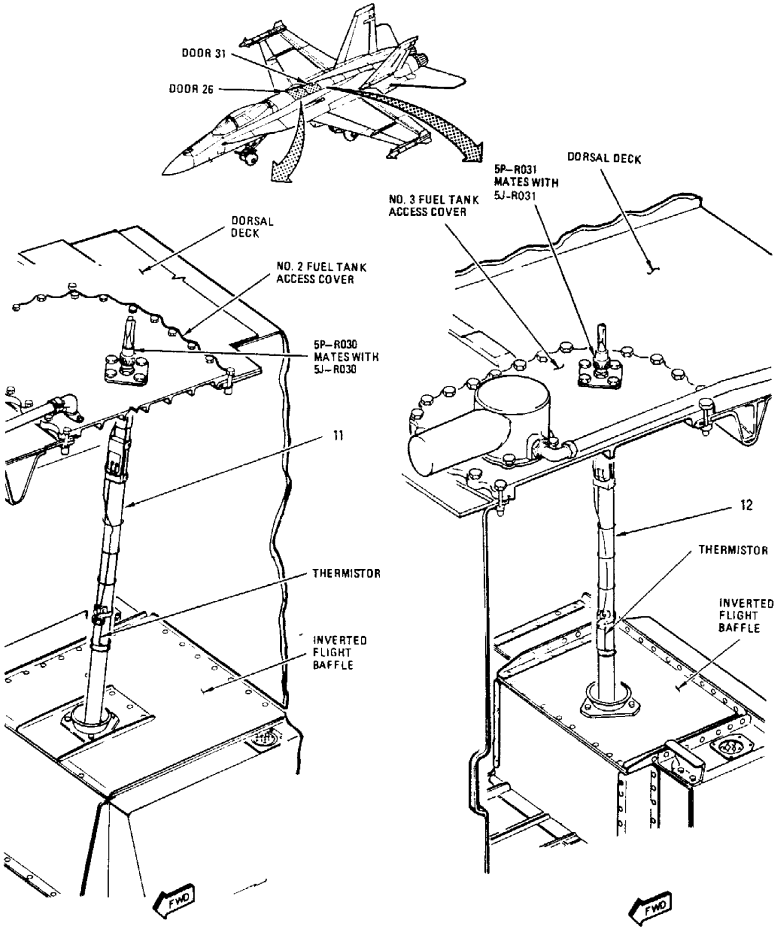


Figure 1. Fuel Quantity Low Level Warning System Component Locator (Sheet 7)



13010108

Figure 1. Fuel Quantity Low Level Warning System Component Locator (Sheet 8)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL QUANTITY LOW LEVEL WARNING SYSTEM

EFFECTIVITY: 161353 THRU 161761

Reference Material

None

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Subject	Page No.
Fuel Quantity Low Level Warning System Schematic, 161353 THRU 161761; BEFORE F18 AFC 39 AND 53, Figure 1	3
Fuel Quantity Low Level Warning System Schematic, 161353 THRU 161761 AFTER F18 AFC 39 AND 53, Figure 2	5

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve, and Raised Inverted Baffle (ECP MDA-F18-00055)	1 Aug 86	-
F18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA-F18-00072C1)	1 Nov 86	-
F/A-18 AFC 48	-	Automatic AC Bus Isolation Incorporation of (ECP MDA-F/A-18-00121)	15 Jan 88	-

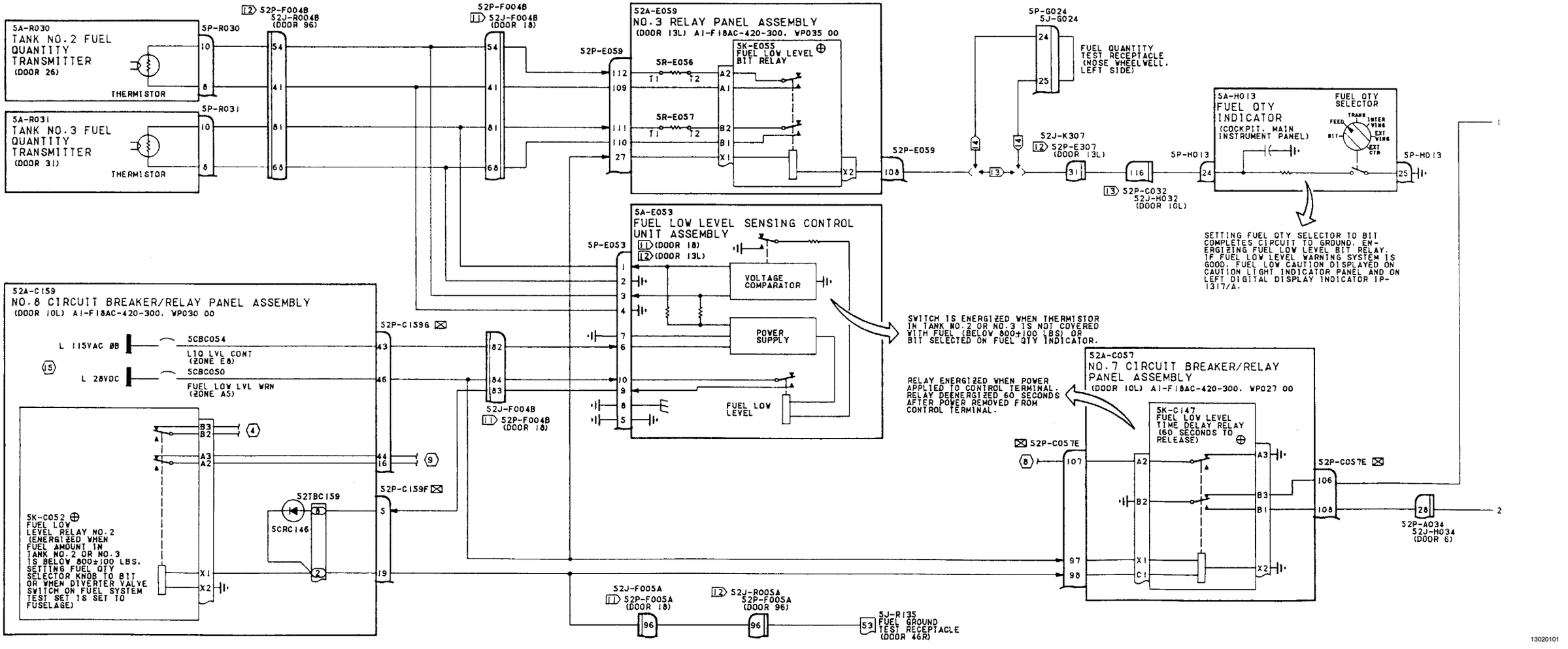
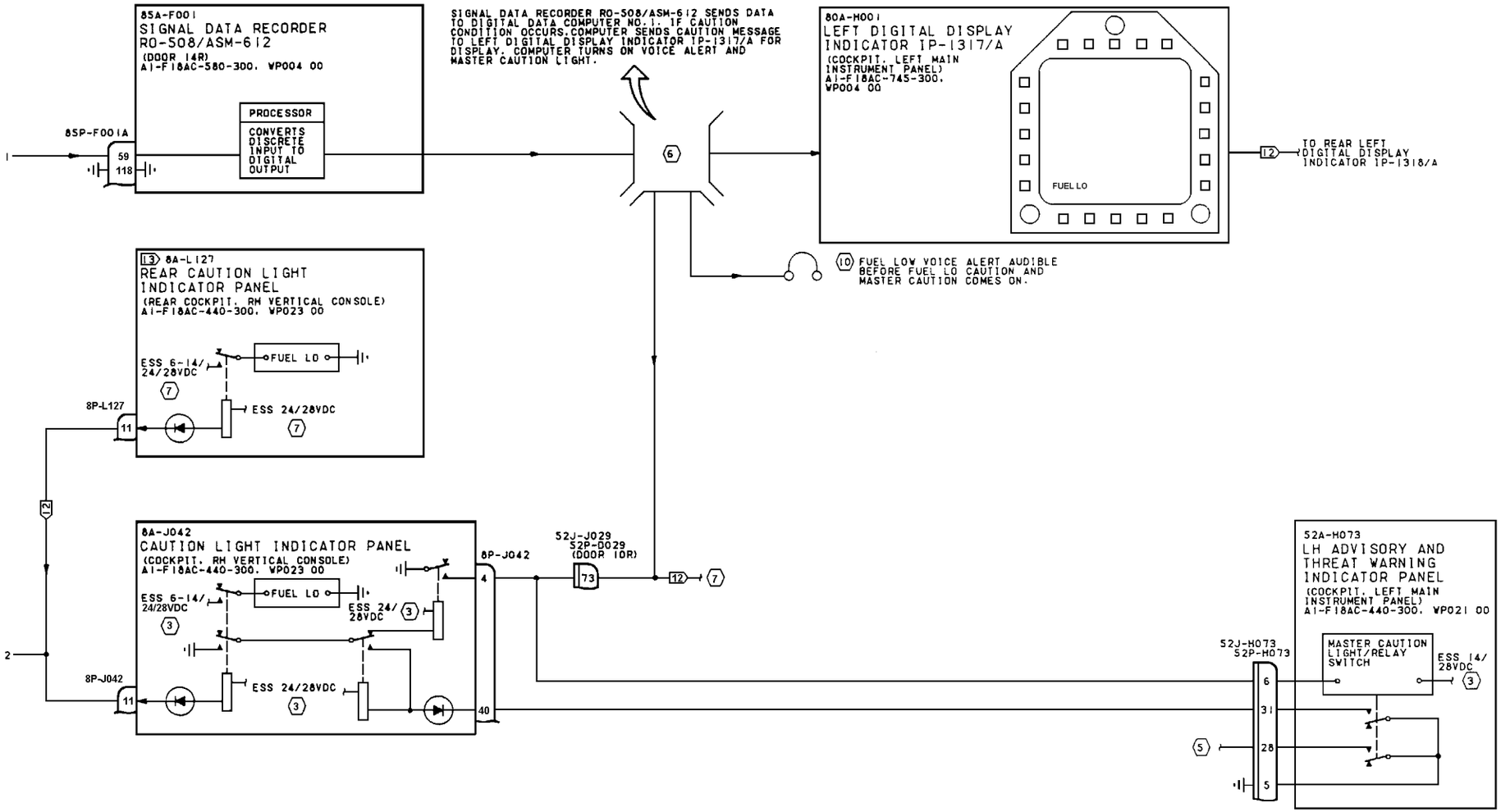
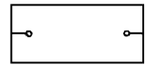


Figure 1. Fuel Quantity Low Level Warning System Schematic, 161353 THRU 161761 BEFORE F18 AFC 053 (Sheet 1)



LEGEND

1. CONTINUITY TESTS:
   A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.
   B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLE-SHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.
   C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RX1 SCALE.
   D. WHEN TESTING CONTINUITY, TEST FOR:
      (1) SHORTS TO GROUND.
      (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
      (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
      (4) SHIELD CONTINUITY.
   E. WHEN ELECTRICAL POWER IS REMOVED, 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS ON CONNECTORS (IDENTIFIED BY ⊠). MAKE SURE MULTIMETER LEADS/ JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY.
2. NONSTANDARD SYMBOLS
   ⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1.



⊠ IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF CONNECTOR. SEE NOTE 1.

(3) COCKPIT WARNING/CAUTION/ADVISORY LIGHTING SYSTEM SCHEMATIC, A1-F18AC-440-500, WP006 00.
(4) EXTERNAL FUEL SYSTEM SCHEMATIC, WP006 00.
(5) CONTROL-CONVERTER C-10382/ASQ AND ELECTRONIC EQUIPMENT CONTROL C-10380/ASQ INTERCONNECT SCHEMATIC, A1-F18AC-741-500, WP007 00.
(6) FUEL QUANTITY LOW LEVEL WARNING SYSTEM CAUTION SCHEMATIC, WP013 04.
(7) REAR COCKPIT WARNING/CAUTION/ADVISORY LIGHTING SYSTEM SCHEMATIC, A1-F18AC-440-500, WP007 00.
(8) FUEL DUMP SYSTEM SCHEMATIC, WP009 00.
(9) HOT FUEL RECIRCULATION SYSTEM SCHEMATIC, WP010 00.
(10) FUEL LOW VOICE ALERT CONTROL LOGIC, INTERCOMMUNICATION AND AUDIO SYSTEM FUNCTIONAL SCHEMATIC, A1-F18AC-600-500, WP013 00.
(11) F/A-18A.
(12) F/A-18B.
(13) 161353 THRU 161359.
(14) 161360 AND UP.
(15) POWER DISTRIBUTION SYSTEM SCHEMATIC, A1-F18AC-420-500, WP005 00.

13020102

Figure 1. Fuel Quantity Low Level Warning System Schematic, 161353 THRU 161761 BEFORE F18 AFC 053 (Sheet 2)

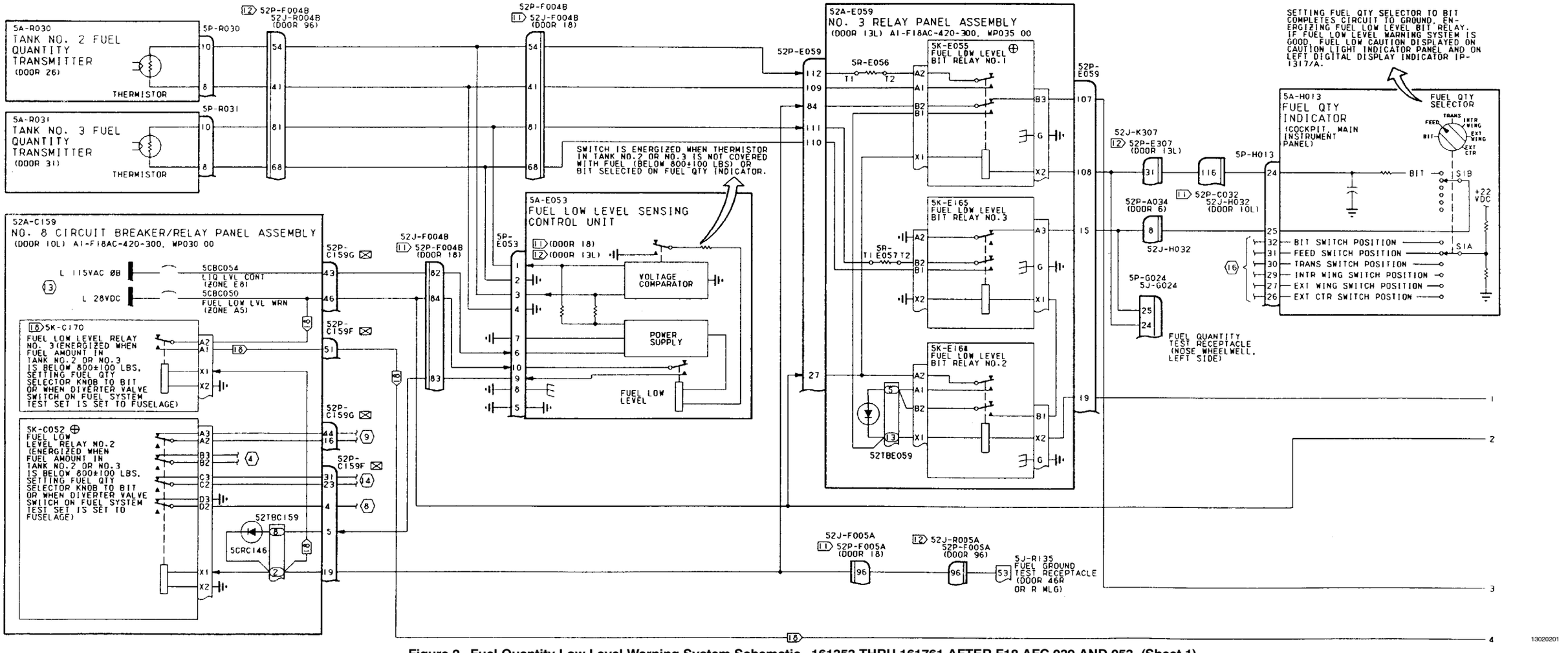
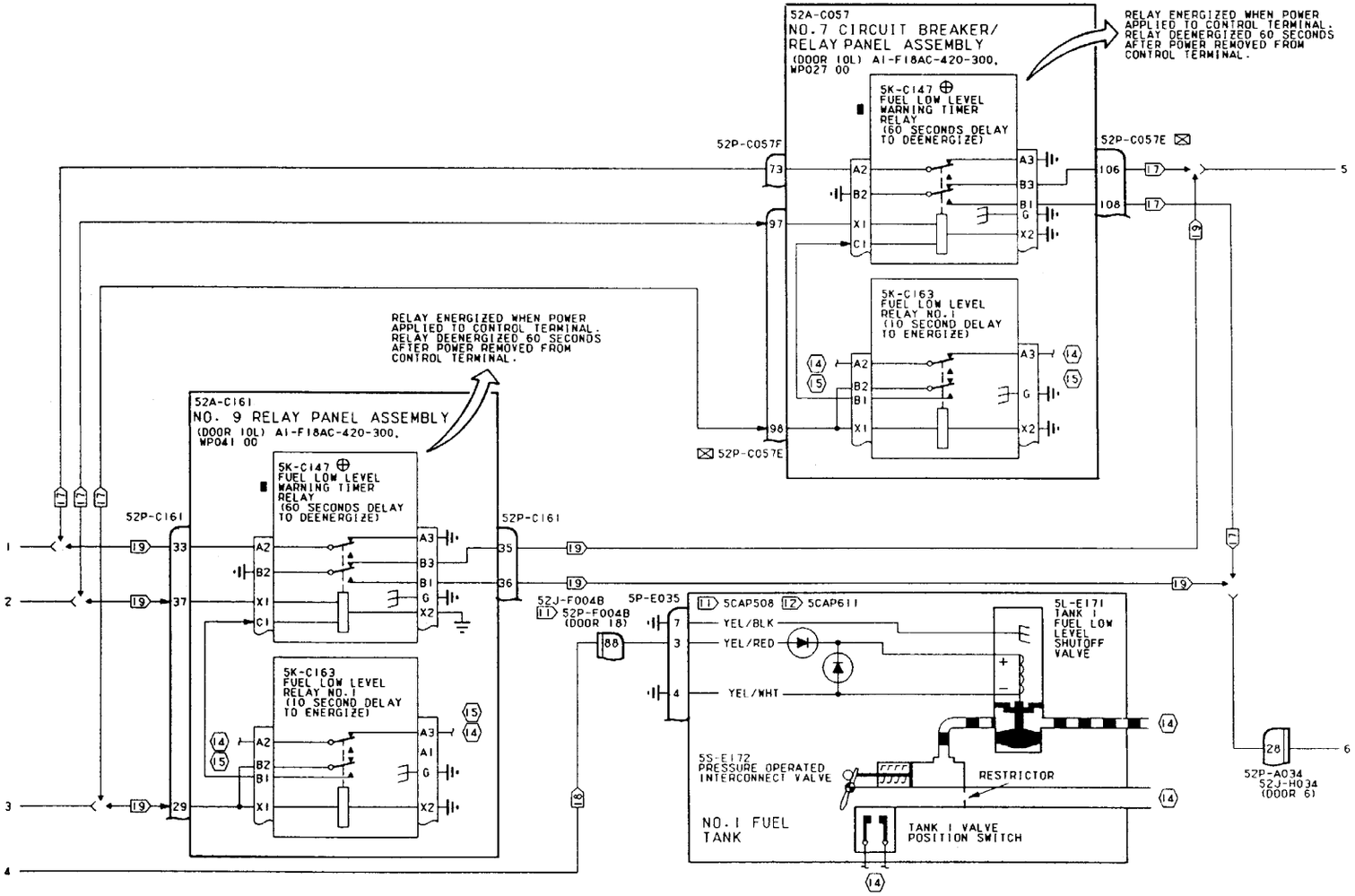
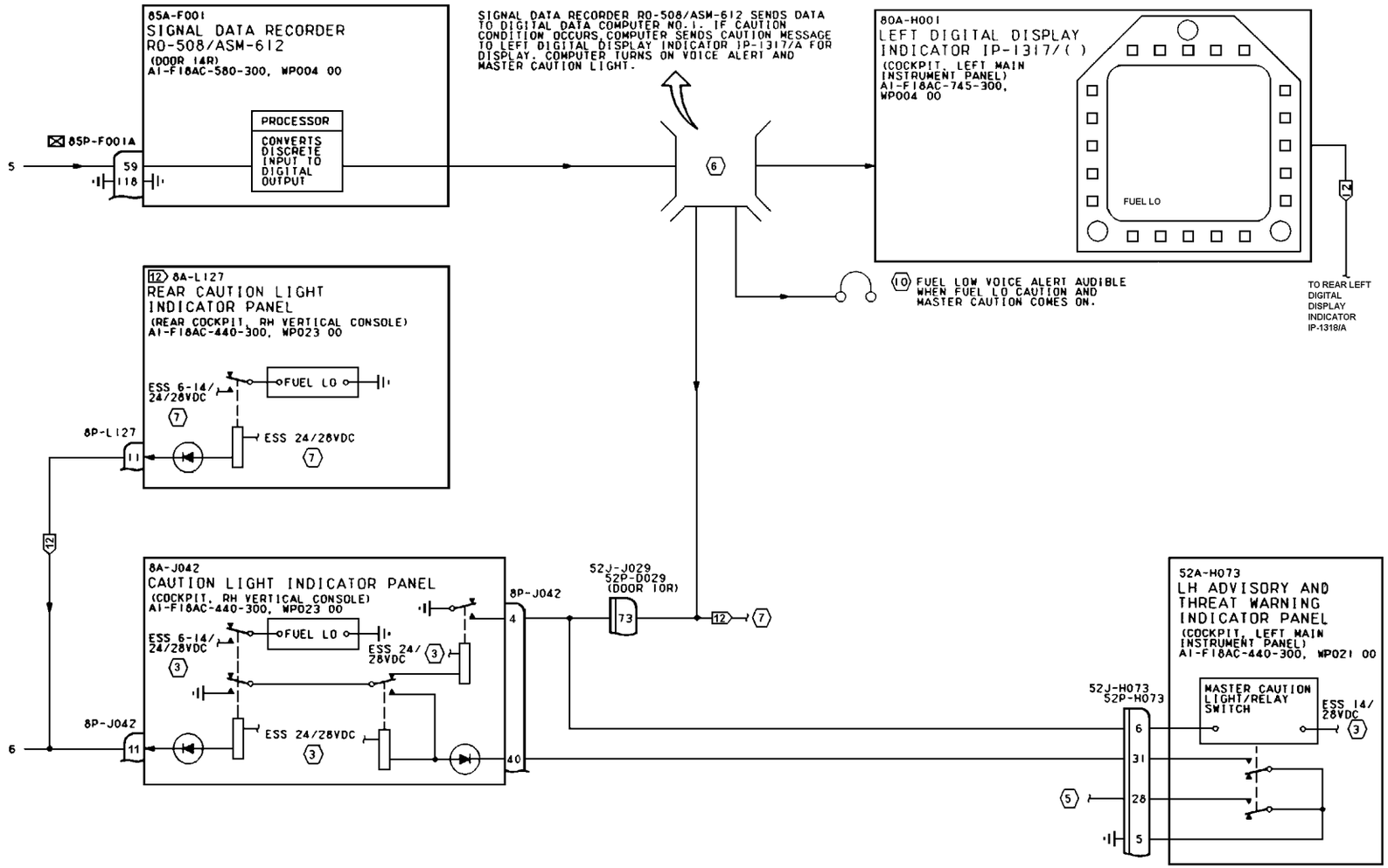


Figure 2. Fuel Quantity Low Level Warning System Schematic, 161353 THRU 161761 AFTER F18 AFC 039 AND 053. (Sheet 1)



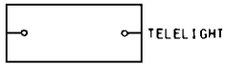
13020202

Figure 2. Fuel Quantity Low Level Warning System Schematic, 161353 THRU 161761 AFTER F18 AFC 039 AND 053. (Sheet 2)



LEGEND

1. CONTINUITY TESTS:
   A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.
   B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.
   C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RX1 SCALE.
   D. WHEN TESTING CONTINUITY, TEST FOR:
      (1) SHORTS TO GROUND.
      (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
      (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
      (4) SHIELD CONTINUITY.
   E. WHEN ELECTRICAL POWER IS OFF, 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS ON CONNECTOR (IDENTIFIED BY ⊠1). MAKE SURE MULTIMETER LEADS/JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY.
2. NONSTANDARD SYMBOLS
   ⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1.



   ⊠1 IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR. SEE NOTE 1.

(3) COCKPIT WARNING/CAUTION/ADVISORY LIGHTING SYSTEM SCHEMATIC, A1-F18AC-440-500, WP006 00.
(4) EXTERNAL FUEL SYSTEM SCHEMATIC, WP006 00.
(5) CONTROL-CONVERTER C-10382/ASQ AND ELECTRONIC EQUIPMENT CONTROL C-10380/ASQ INTERCONNECT SCHEMATIC, A1-F18AC-741-500, WP007 00.
(6) FUEL QUANTITY LOW LEVEL WARNING SYSTEM CAUTION SCHEMATIC, WP013 04.
(7) REAR COCKPIT WARNING/CAUTION/ADVISORY LIGHTING SYSTEM SCHEMATIC, A1-F18AC-440-500, WP007 00.
(8) FUEL DUMP SYSTEM SCHEMATIC, WP009 00.
(9) HOT FUEL RECIRCULATION SYSTEM SCHEMATIC, WP010 00.
(10) FUEL LOW VOICE ALERT CONTROL LOGIC, INTERCOMMUNICATION AND AUDIO SYSTEM FUNCTIONAL SCHEMATIC, A1-F18AC-600-500, WP013 00.
(11) F/A-18A.
(12) F/A-18B.
(13) POWER DISTRIBUTION SYSTEM SCHEMATIC, A1-F18AC-420-500, WP005 00.
(14) INTERNAL FUEL TRANSFER SYSTEM SCEMATIC, WP007 00.
(15) CG CONTROL SYSTEM SCHEMATIC, 161924 AND UP, WP014 02.
(16) FUEL QUANTITY GAGING SYSTEM SCHEMATIC, WP012 00.
(17) BEFORE F18 AFC 048.
(18) 161353 THRU 161519 AFTER F18 AFC 039 AND 161520 THRU 161761 AFTER F18 AFC 053.
(19) AFTER F18 AFC 048.

13020203

Figure 2. Fuel Quantity Low Level Warning System Schematic, 161353 THRU 161761 AFTER F18 AFC 039 AND 053. (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL QUANTITY LOW LEVEL WARNING SYSTEM

EFFECTIVITY: 161924 AND UP

Reference Material

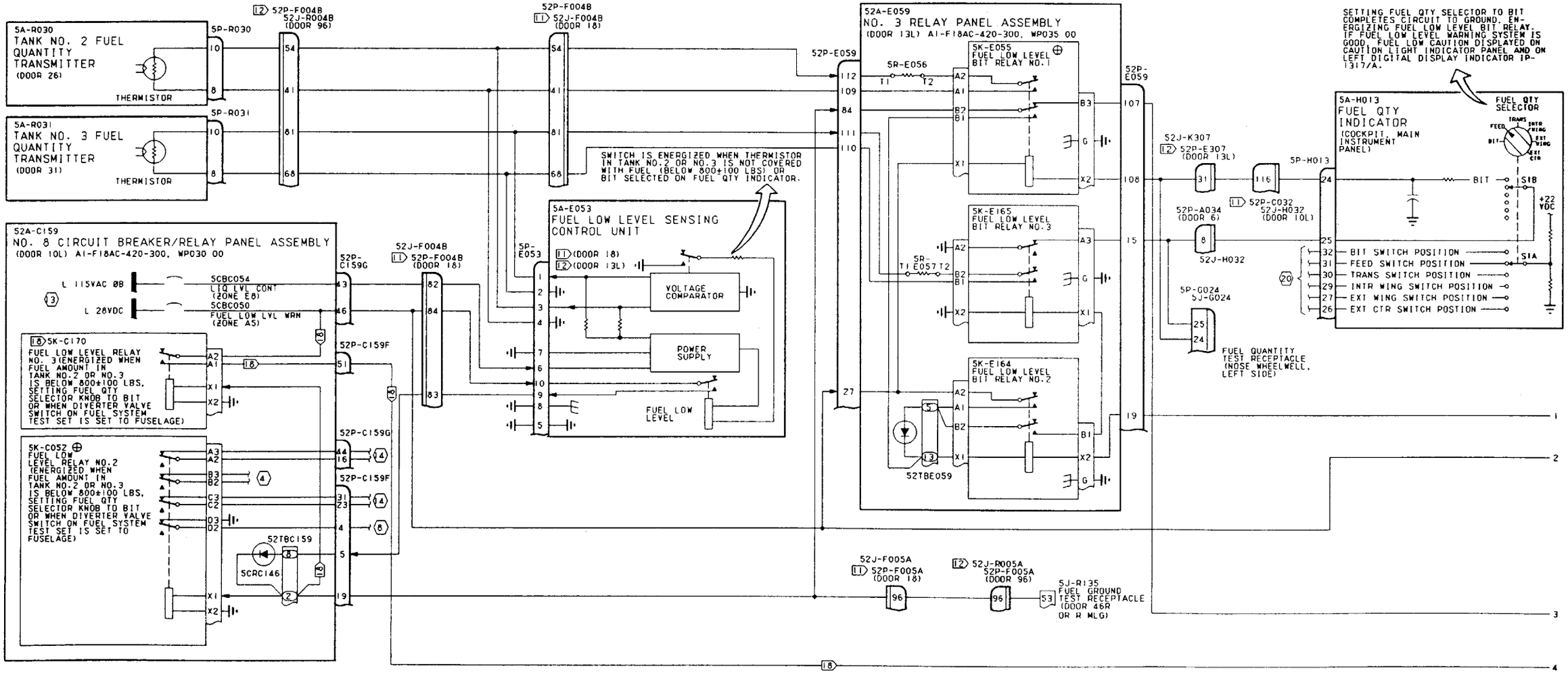
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Subject	Page No.
Fuel Quantity Low Level Warning System Schematic, 161924 AND UP, Figure 1	3

Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 48	-	Automatic AC Bus Isolation, Incorporation of (ECP MDA F/A-18 00121)	15 Jan 88	-



13030101

Figure 1. Fuel Quantity Low Level Warning System Schematic, 161924 AND UP (Sheet 1)

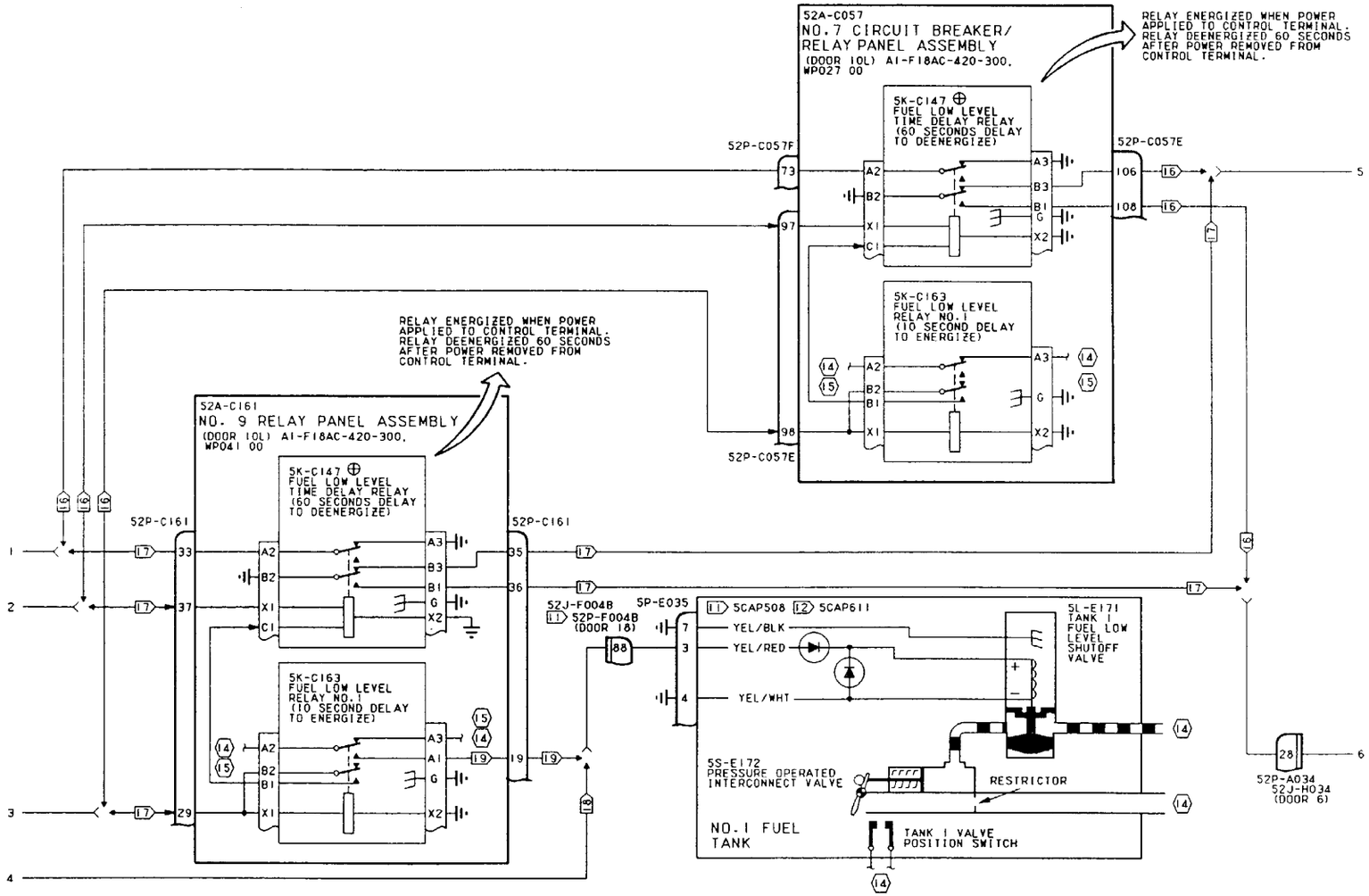
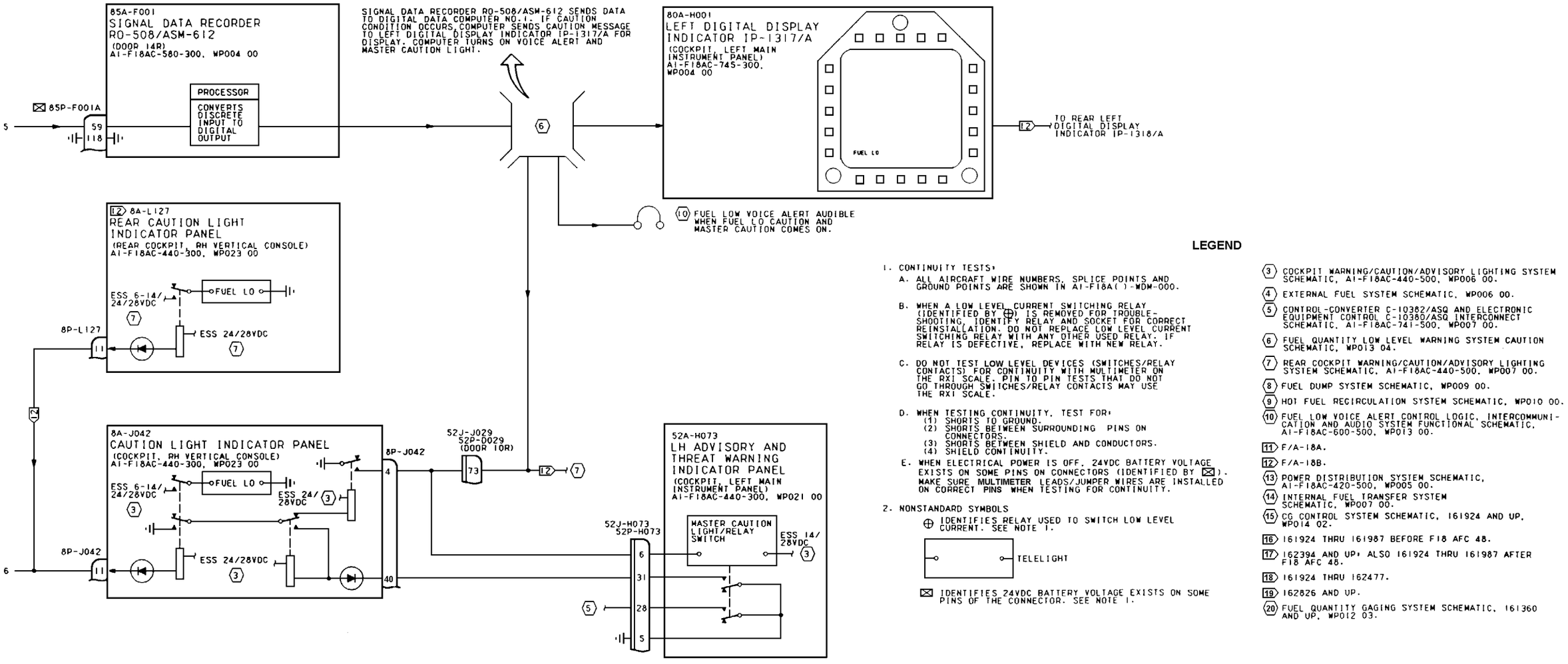


Figure 1. Fuel Quantity Low Level Warning System Schematic, 161924 AND UP (Sheet 2)



LEGEND

1. CONTINUITY TESTS:
   A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.
   B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLE-SHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.
   C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RX1 SCALE.
   D. WHEN TESTING CONTINUITY, TEST FOR:
      (1) SHORTS TO GROUND.
      (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
      (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
      (4) SHIELD CONTINUITY.
   E. WHEN ELECTRICAL POWER IS OFF, 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS ON CONNECTORS (IDENTIFIED BY ⊠). MAKE SURE MULTIMETER LEADS/JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY.
2. NONSTANDARD SYMBOLS
   ⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1.
   TELELIGHT
   ⊠ IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR. SEE NOTE 1.

(3) COCKPIT WARNING/CAUTION/ADVISORY LIGHTING SYSTEM SCHEMATIC, A1-F18AC-440-500, WP006 00.
(4) EXTERNAL FUEL SYSTEM SCHEMATIC, WP006 00.
(5) CONTROL-CONVERTER C-10382/ASQ AND ELECTRONIC EQUIPMENT CONTROL C-10380/ASQ INTERCONNECT SCHEMATIC, A1-F18AC-741-500, WP007 00.
(6) FUEL QUANTITY LOW LEVEL WARNING SYSTEM CAUTION SCHEMATIC, WP013 04.
(7) REAR COCKPIT WARNING/CAUTION/ADVISORY LIGHTING SYSTEM SCHEMATIC, A1-F18AC-440-500, WP007 00.
(8) FUEL DUMP SYSTEM SCHEMATIC, WP009 00.
(9) HOT FUEL RECIRCULATION SYSTEM SCHEMATIC, WP010 00.
(10) FUEL LOW VOICE ALERT CONTROL LOGIC, INTERCOMMUNICATION AND AUDIO SYSTEM FUNCTIONAL SCHEMATIC, A1-F18AC-600-500, WP013 00.
(11) F/A-18A.
(12) F/A-18B.
(13) POWER DISTRIBUTION SYSTEM SCHEMATIC, A1-F18AC-420-500, WP005 00.
(14) INTERNAL FUEL TRANSFER SYSTEM SCHEMATIC, WP007 00.
(15) CG CONTROL SYSTEM SCHEMATIC, 161924 AND UP, WP014 02.
(16) 161924 THRU 161987 BEFORE F18 AFC 48.
(17) 162394 AND UP; ALSO 161924 THRU 161987 AFTER F18 AFC 48.
(18) 161924 THRU 162477.
(19) 162826 AND UP.
(20) FUEL QUANTITY GAGING SYSTEM SCHEMATIC, 161360 AND UP, WP012 03.

13030103

Figure 1. Fuel Quantity Low Level Warning System Schematic, 161924 AND UP (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

FUEL QUANTITY LOW LEVEL WARNING SYSTEM

CAUTION SCHEMATIC

Reference Material

None

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Subject	Page No.
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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 48	-	Automatic AC Bus Isolation Incorporation of (ECP MDA-F/A-18 00121)	15 Jan 88	-

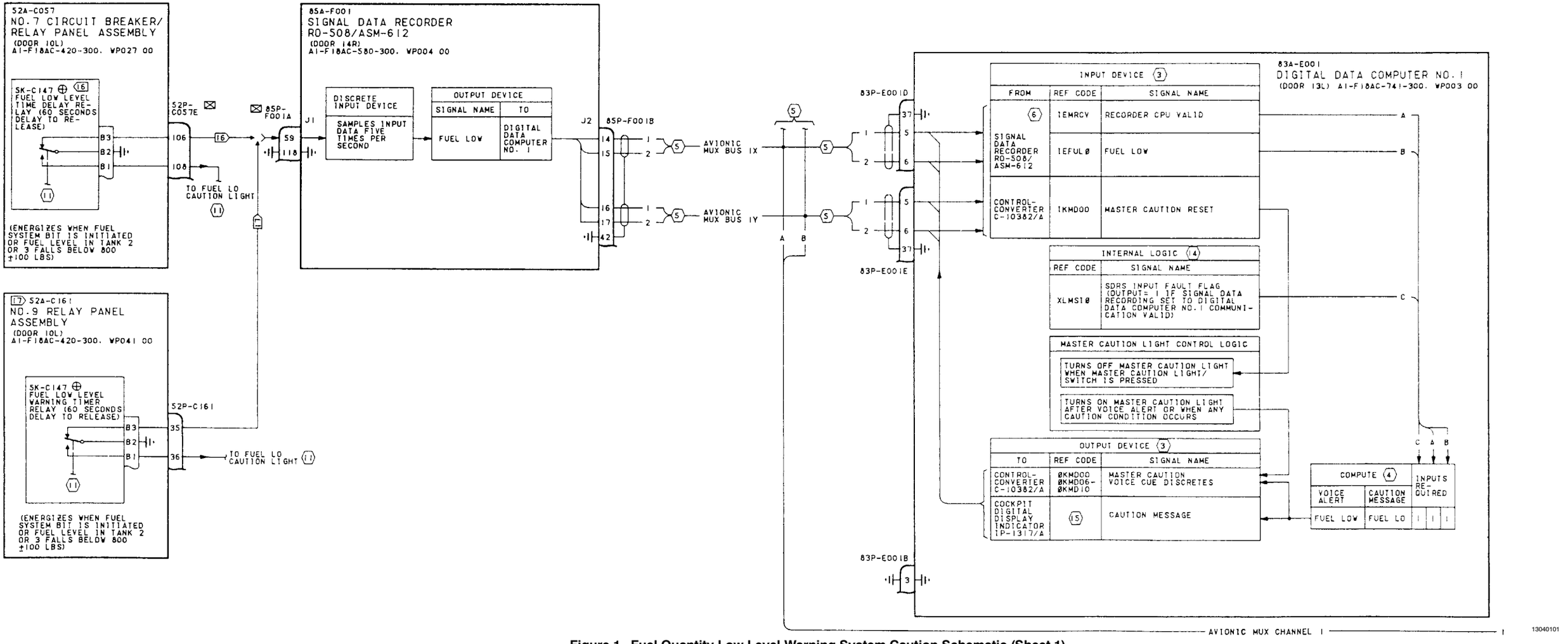
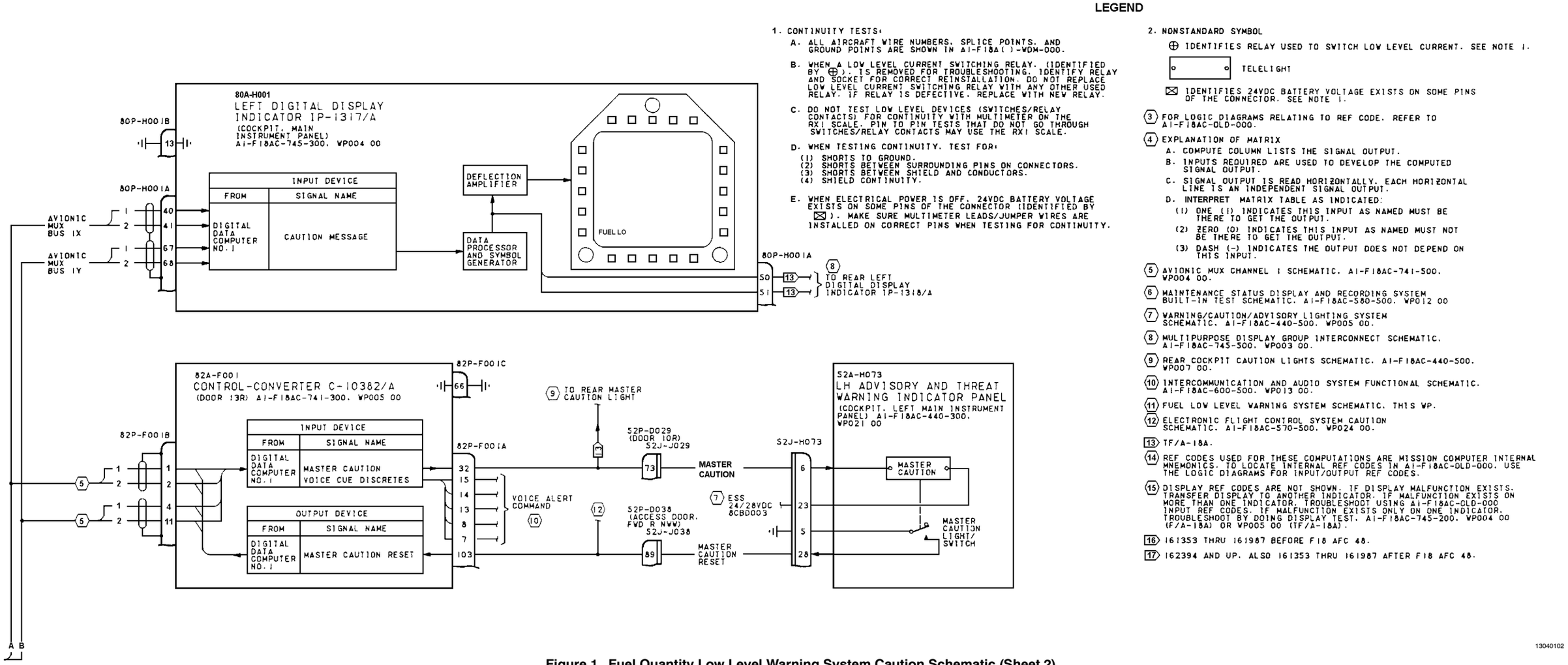


Figure 1. Fuel Quantity Low Level Warning System Caution Schematic (Sheet 1)



LEGEND

1. CONTINUITY TESTS:
   A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.
   B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY, (IDENTIFIED BY ⊕), IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.
   C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RX1 SCALE.
   D. WHEN TESTING CONTINUITY, TEST FOR:
      (1) SHORTS TO GROUND.
      (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
      (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
      (4) SHIELD CONTINUITY.
   E. WHEN ELECTRICAL POWER IS OFF, 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR (IDENTIFIED BY ⊠). MAKE SURE MULTIMETER LEADS/JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY.

2. NONSTANDARD SYMBOL
   ⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1.
   ○ TELELIGHT
   ⊠ IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR. SEE NOTE 1.

(3) FOR LOGIC DIAGRAMS RELATING TO REF CODE, REFER TO A1-F18AC-OLD-000.

(4) EXPLANATION OF MATRIX
   A. COMPUTE COLUMN LISTS THE SIGNAL OUTPUT.
   B. INPUTS REQUIRED ARE USED TO DEVELOP THE COMPUTED SIGNAL OUTPUT.
   C. SIGNAL OUTPUT IS READ HORIZONTALLY. EACH HORIZONTAL LINE IS AN INDEPENDENT SIGNAL OUTPUT.
   D. INTERPRET MATRIX TABLE AS INDICATED:
      (1) ONE (1) INDICATES THIS INPUT AS NAMED MUST BE THERE TO GET THE OUTPUT.
      (2) ZERO (0) INDICATES THIS INPUT AS NAMED MUST NOT BE THERE TO GET THE OUTPUT.
      (3) DASH (–) INDICATES THE OUTPUT DOES NOT DEPEND ON THIS INPUT.

(5) AVIONIC MUX CHANNEL 1 SCHEMATIC, A1-F18AC-741-500, WP004 00.

(6) MAINTENANCE STATUS DISPLAY AND RECORDING SYSTEM BUILT-IN TEST SCHEMATIC, A1-F18AC-580-500, WP012 00

(7) WARNING/CAUTION/ADVISORY LIGHTING SYSTEM SCHEMATIC, A1-F18AC-440-500, WP005 00.

(8) MULTIPURPOSE DISPLAY GROUP INTERCONNECT SCHEMATIC, A1-F18AC-745-500, WP003 00.

(9) REAR COCKPIT CAUTION LIGHTS SCHEMATIC, A1-F18AC-440-500, WP007 00.

(10) INTERCOMMUNICATION AND AUDIO SYSTEM FUNCTIONAL SCHEMATIC, A1-F18AC-600-500, WP013 00.

(11) FUEL LOW LEVEL WARNING SYSTEM SCHEMATIC, THIS WP.

(12) ELECTRONIC FLIGHT CONTROL SYSTEM CAUTION SCHEMATIC, A1-F18AC-570-500, WP024 00.

[13] TF/A-18A.

(14) REF CODES USED FOR THESE COMPUTATIONS ARE MISSION COMPUTER INTERNAL MNEMONICS. TO LOCATE INTERNAL REF CODES IN A1-F18AC-OLD-000, USE THE LOGIC DIAGRAMS FOR INPUT/OUTPUT REF CODES.

(15) DISPLAY REF CODES ARE NOT SHOWN. IF DISPLAY MALFUNCTION EXISTS, TRANSFER DISPLAY TO ANOTHER INDICATOR. IF MALFUNCTION EXISTS ON MORE THAN ONE INDICATOR, TROUBLESHOOT USING A1-F18AC-OLD-000 INPUT REF CODES. IF MALFUNCTION EXISTS ONLY ON ONE INDICATOR, TROUBLESHOOT BY DOING DISPLAY TEST, A1-F18AC-745-200, WP004 00 (F/A-18A) OR WP005 00 (TF/A-18A).

[16] 161353 THRU 161987 BEFORE F18 AFC 48.

[17] 162394 AND UP. ALSO 161353 THRU 161987 AFTER F18 AFC 48.

13040102

Figure 1. Fuel Quantity Low Level Warning System Caution Schematic (Sheet 2)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

CENTER OF GRAVITY (CG) CONTROL SYSTEM

EFFECTIVITY: 161520 AND UP

Title	WP Number
Center of Gravity (CG) Control System Component Locator, 161520 AND UP	014 01
Center of Gravity (CG) Control System 161520 THRU 161761 BEFORE F18 AFC 39 AND 53	014 02
Center of Gravity (CG) Control System Caution Schematic, 161520 AND UP	014 03
Center of Gravity (CG) Control System 161924 THRU 161987; ALSO 161353 THRU 161761 AFTER F18 AFC 39 AND 53	014 04
Center of Gravity (CG) Control System 162394 AND UP	014 05

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

CENTER OF GRAVITY (CG) CONTROL SYSTEM

COMPONENT LOCATOR

EFFECTIVITY: 161520 AND UP

Reference Material

None

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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tanks 4 Motive Flow Shutoff Valve, and Raised Inverted Baffle (ECP MDA-F18-00055)	1 Aug 86	-
F18 AFC 48	-	Automatic AC Bus Isolation, Incorporation of	1 Aug 86	-
F18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA-F18-00072C1)	1 Nov 86	-

NOMENCLATURE	INDEX NO.	REF DES
AIR DATA COMPUTER CP-1334/A	4	70A-F001
CONTROL - CONVERTER C-10382/A	3	82A-F001
FUEL QUANTITY GAGING INTERMEDIATE DEVICE	8	5A-F014
LEFT DIGITAL DISPLAY INDICATOR IP-1317/( )	2	80A-H001
LH ADVISORY AND THREAT WARNING INDICATOR PANEL	1	52A-H073
NO. 1 FUEL TANK TRANSFER CONTROL VALVE	17	5L-F160
NO. 1 FUEL TANK TRANSFER JET EJECTOR	18	5BAP536
NO. 1 FUEL TANK TRANSFER PILOT VALVE	14	5VAP537
8 NO. 1 FUEL TANK TRANSFER PRECHECK VALVE	15	5VAP606
NO. 1 FUEL TANK TRANSFER SHUTOFF VALVE	16	5VAP534
NO. 2 CIRCUIT BREAKER PANEL ASSEMBLY	7	52A-D024
4 NO. 4 FUEL TANK TRANSFER CONTROL VALVE	21	5L-R167
NO. 4 FUEL TANK TRANSFER JET EJECTOR	20	5VAP567
NO. 4 FUEL TANK TRANSFER PILOT VALVE	22	5VAP519
8 NO. 4 FUEL TANK TRANSFER PRECHECK VALVE	23	5VAP589
NO. 4 FUEL TANK TRANSFER SHUTOFF VALVE	19	5VAP565
NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY	6	52A-C057
NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY	12	52A-C159
2 NO. 9 RELAY PANEL ASSEMBLY	13	52A-C161
SIGNAL DATA CONVERTER CV-3493/ASM-612	11	85A-N002
SIGNAL DATA RECORDER RO-508/ASM-612	9	85A-F001
DIGITAL DATA COMPUTER NO. 1	5	83A-E001
DIGITAL DATA COMPUTER NO. 2	10	83A-F002

14010101

Figure 1. CG Control System Component Locator (Sheet 1)

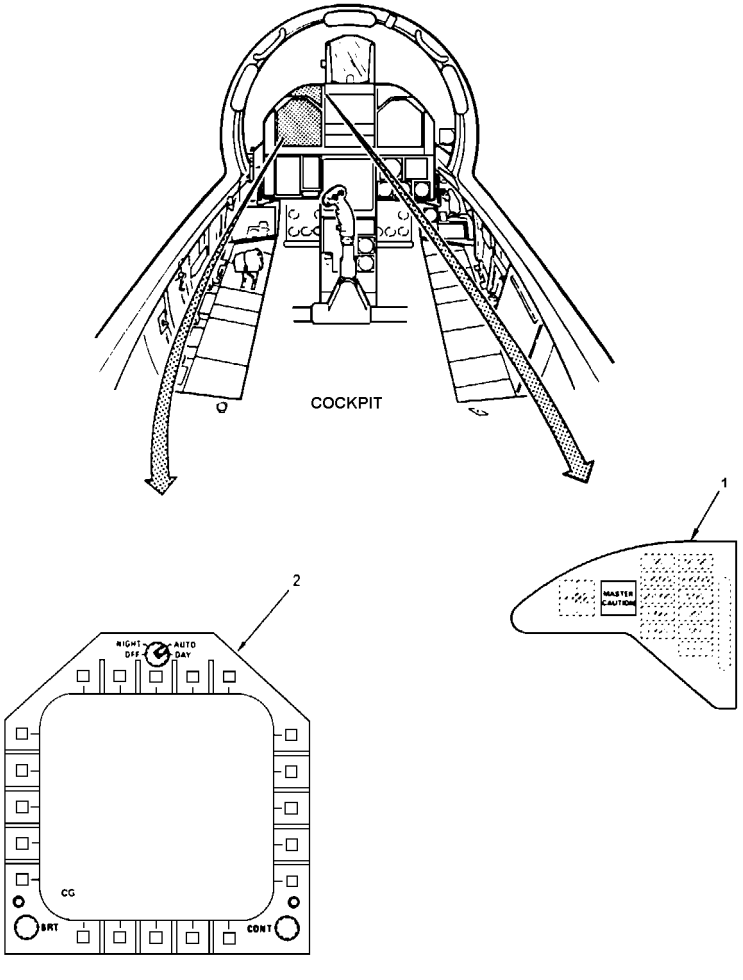


Figure 1. CG Control System Component Locator (Sheet 2)

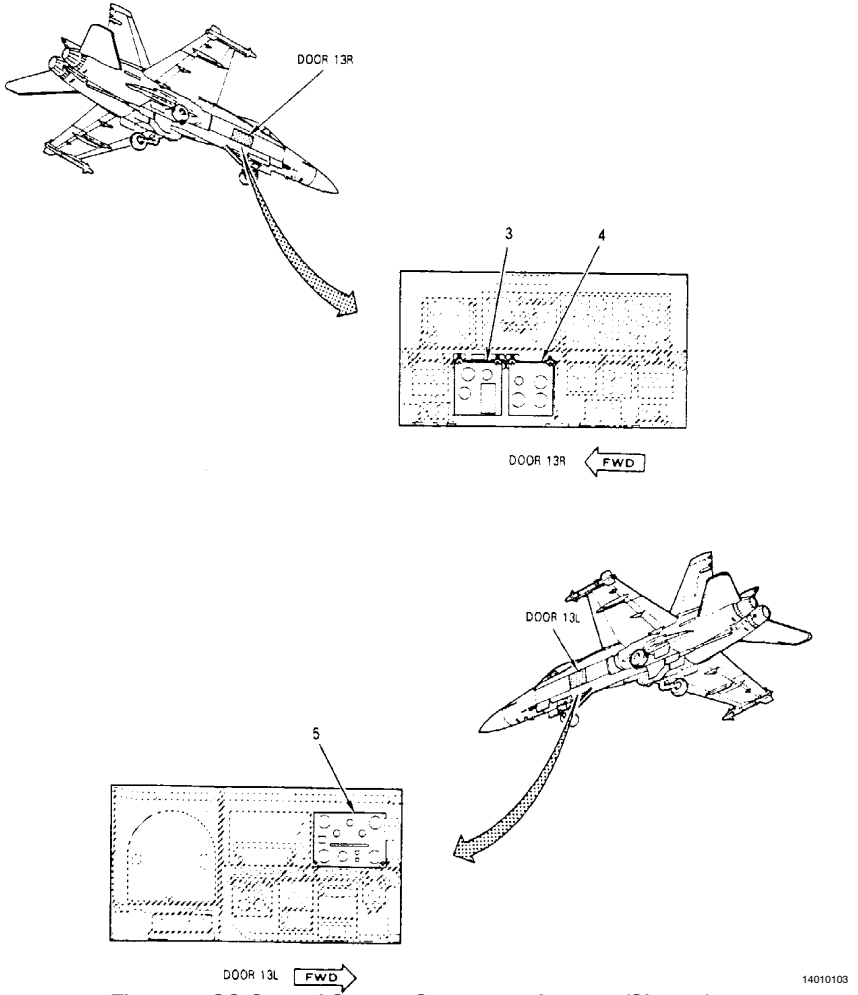
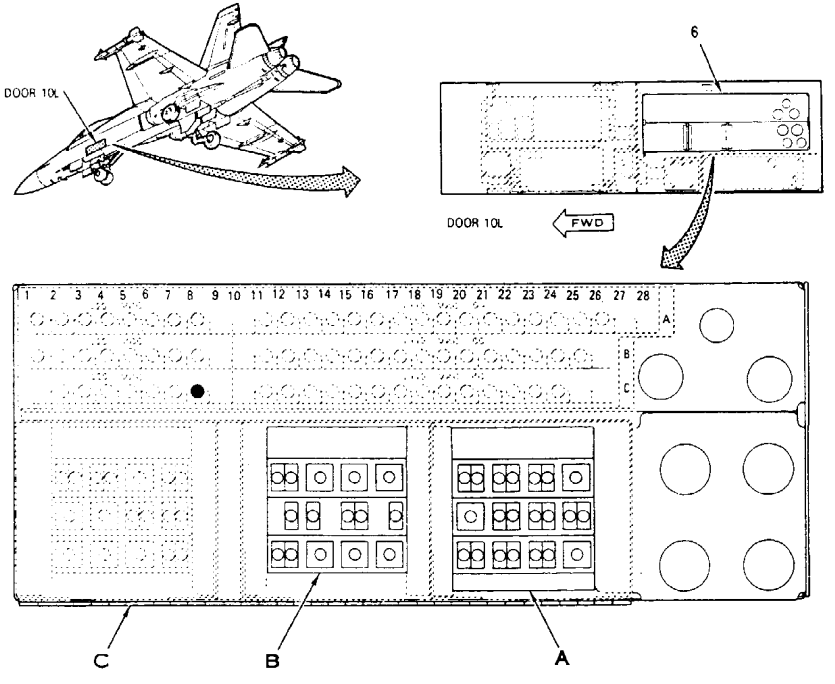


Figure 1. CG Control System Component Locator (Sheet 3)

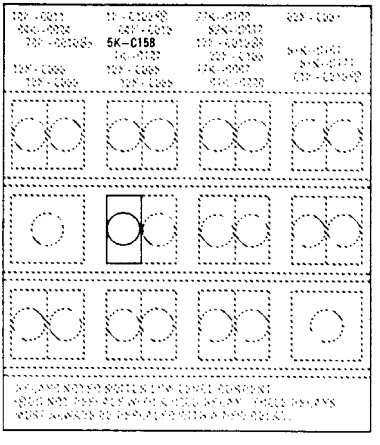


52A-C057

52A-C057 NO. 7 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
10 C9	5CBC157	FUEL TRANSFER	L28VDC
11 C9	5CBC157	TANK 1 TRANSFER	L28VDC
12	5K-C158	TANK 1 TRANSFER CONTROL RELAY	
9	5K-C159	TANK 1 TRANSFER TIME DELAY RELAY	
	5K-C161	4 NEGATIVE G RELAY	
	5K-C163	3 FUEL LOW LEVEL RELAY NO. 1	

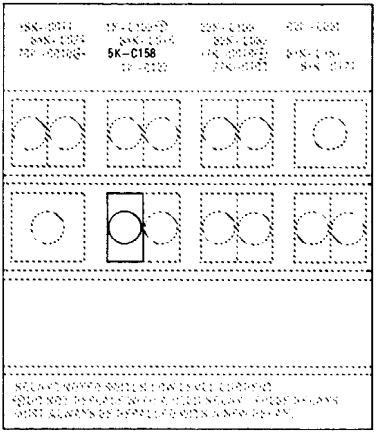
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Figure 1. CG Control System Component Locator (Sheet 4)

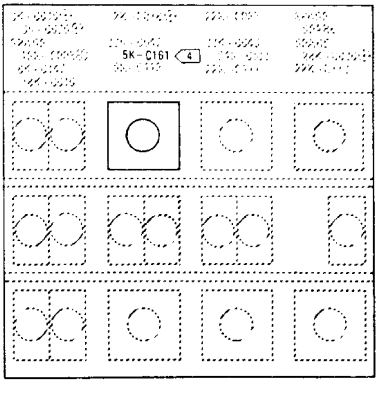


F/A-18B

A

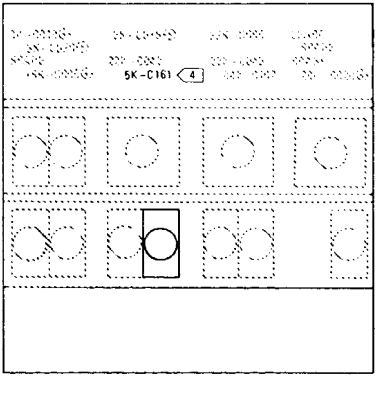


F/A-18A



F/A-18B

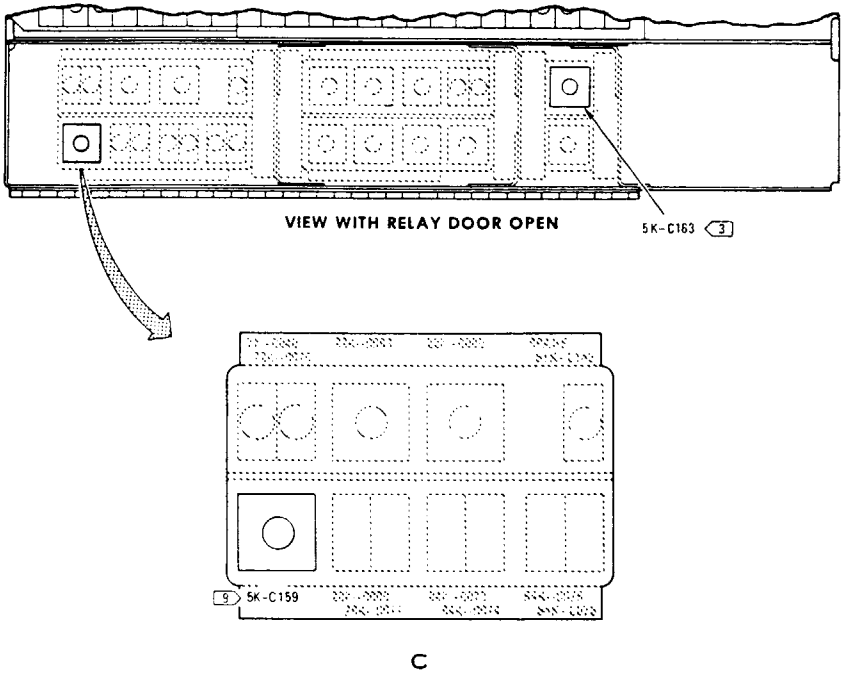
B



F/A-18A

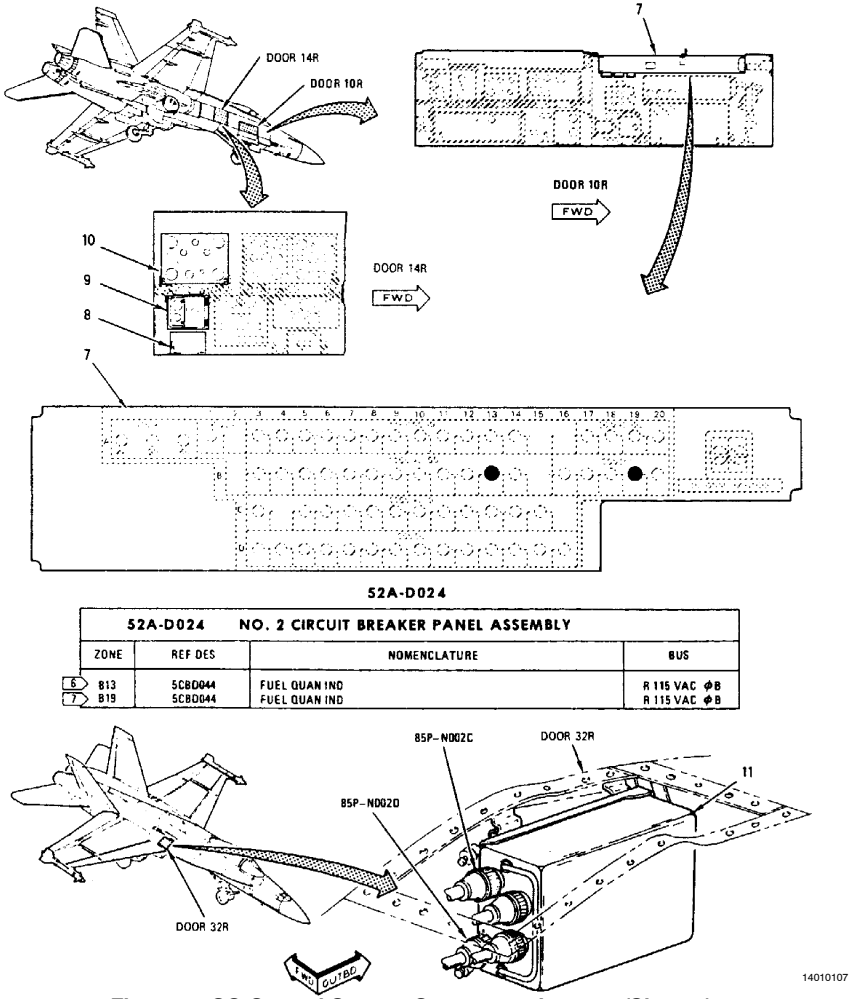
14010105

Figure 1. CG Control System Component Locator (Sheet 5)



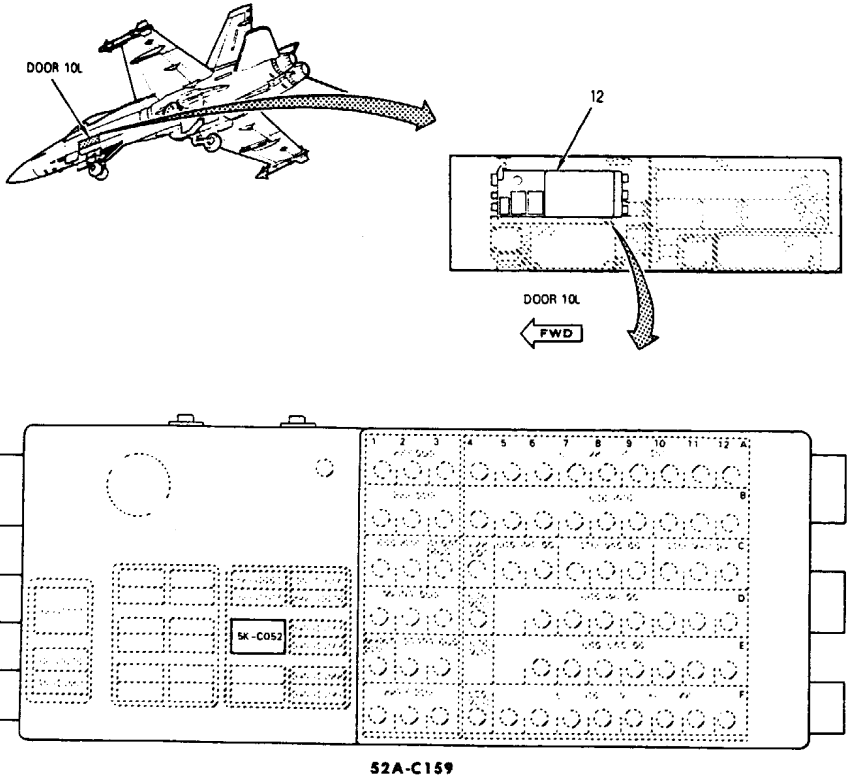
14010106

Figure 1. CG Control System Component Locator (Sheet 6)



52A-D024 NO. 2 CIRCUIT BREAKER PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
6 B13	5CBD044	FUEL QUAN IND	R 115 VAC ϕB
7 B19	5CBD044	FUEL QUAN IND	R 115 VAC ϕB

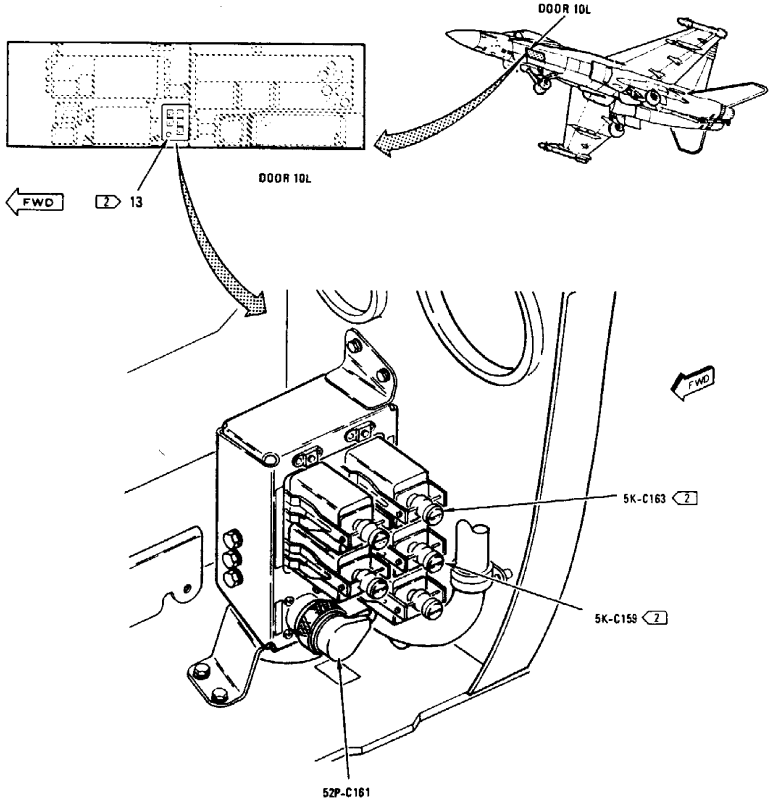
Figure 1. CG Control System Component Locator (Sheet 7)



52A-C159 NO. 8 CIRCUIT BREAKER/RELAY PANEL ASSEMBLY			
ZONE	REF DES	NOMENCLATURE	BUS
	5K–C052	FUEL LOW LEVEL RELAY NO. 2	

04010108

Figure 1. CG Control System Component Locator (Sheet 8)



52A-C161		2 NO. 9 RELAY PANEL ASSEMBLY	
ZONE	REF DES	NOMENCLATURE	BUS
	2 5K-C159	TANK 1 TRANSFER TIME DELAY RELAY	
	2 5K-C163 5	FUEL LOW LEVEL RELAY NO. 1	

14010109

Figure 1. CG Control System Component Locator (Sheet 9)

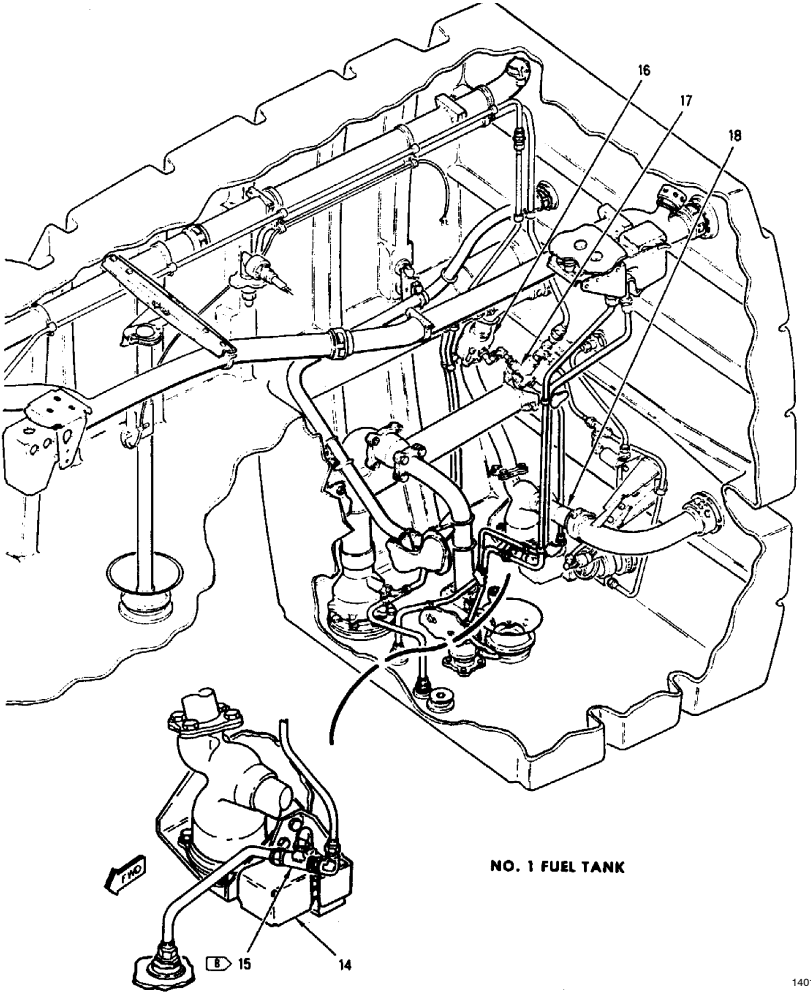
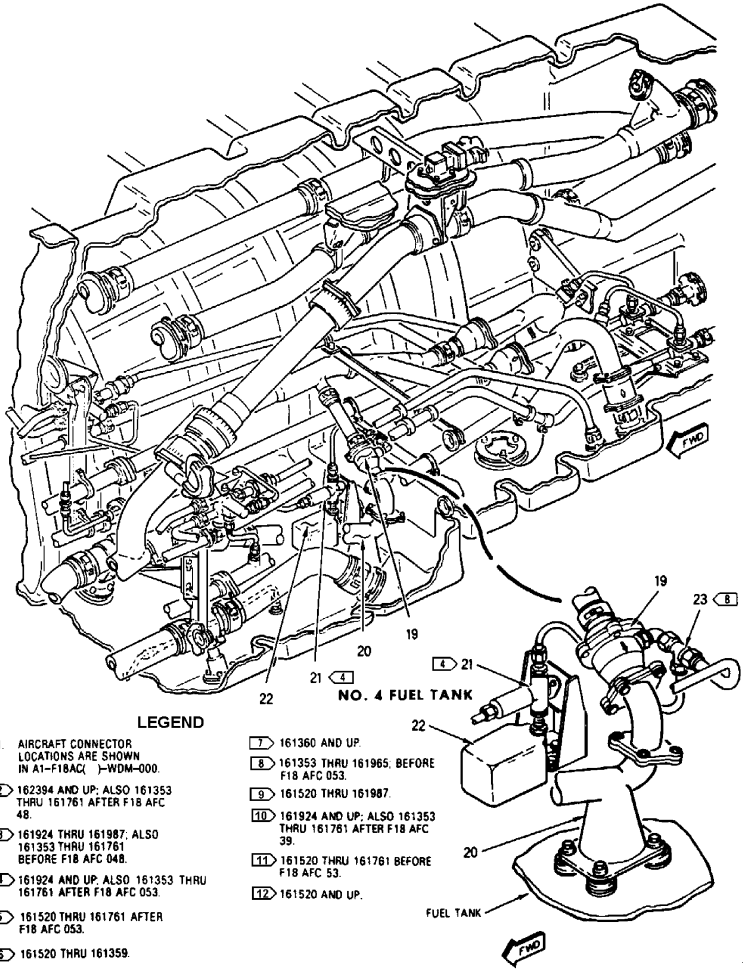


Figure 1. CG Control System Component Locator (Sheet 10)



LEGEND

1. AIRCRAFT CONNECTOR LOCATIONS ARE SHOWN IN A1-F18AC( )-WDM-000.

2 > 162394 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 48.

3 > 161924 THRU 161987; ALSO 161353 THRU 161761 BEFORE F18 AFC 048.

4 > 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 053.

5 > 161520 THRU 161761 AFTER F18 AFC 053.

6 > 161520 THRU 161359.

7 > 161360 AND UP.

8 > 161353 THRU 161965; BEFORE F18 AFC 053.

9 > 161520 THRU 161987.

10 > 161924 AND UP; ALSO 161353 THRU 161761 AFTER F18 AFC 39.

11 > 161520 THRU 161761 BEFORE F18 AFC 53.

12 > 161520 AND UP.

Figure 1. CG Control System Component Locator (Sheet 11)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

CENTER OF GRAVITY (CG) CONTROL SYSTEM

EFFECTIVITY: 161520 THRU 161761 BEFORE F18 AFC 39 AND 53

Reference Material

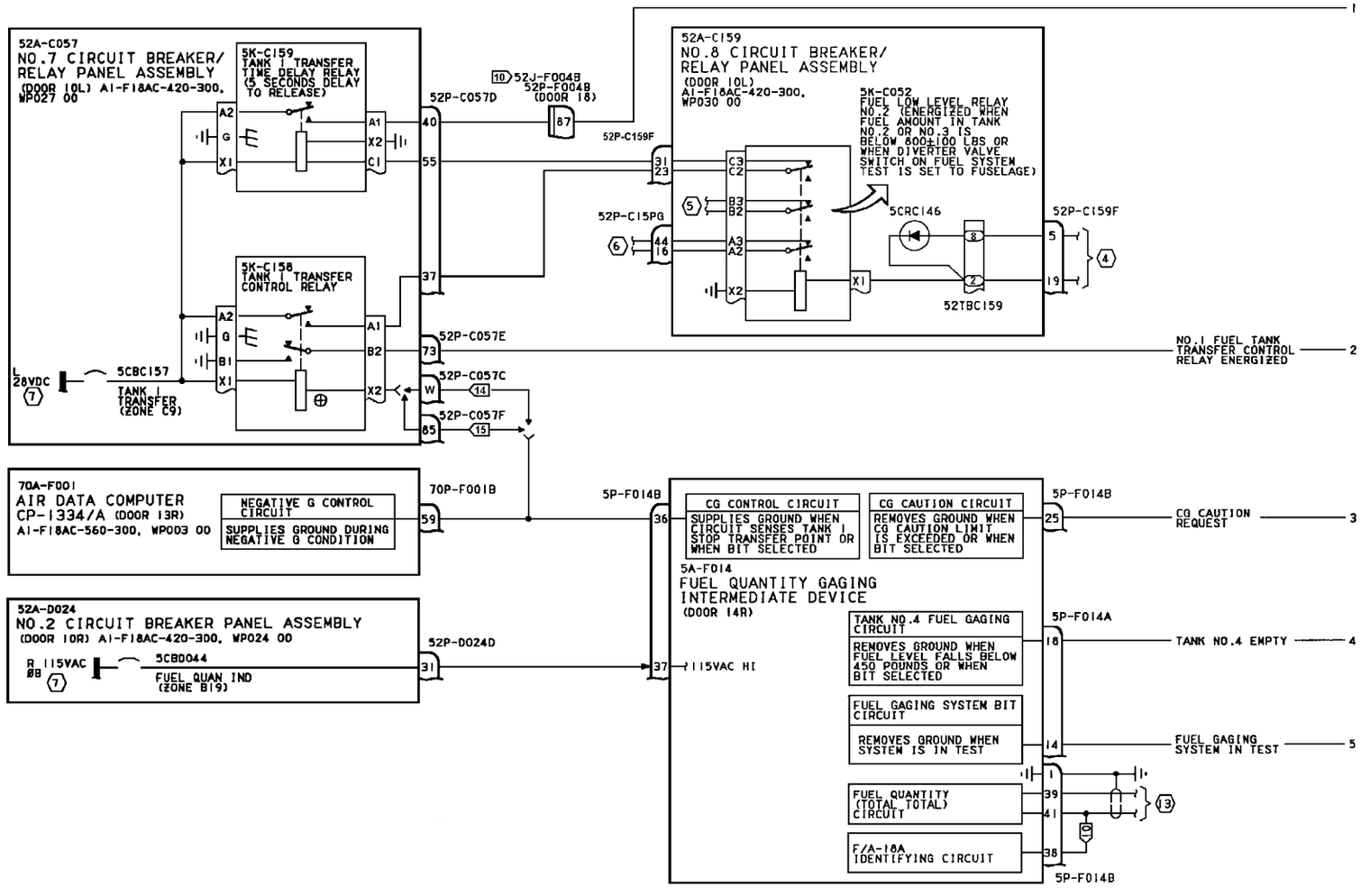
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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 74	-	Installation of Aircraft Wiring For Additional Weapons Capability (ECP MDA-F/A-18-00090)	15 Jul 91	-



14020101

Figure 1. CG Control System Schematic (Sheet 1)

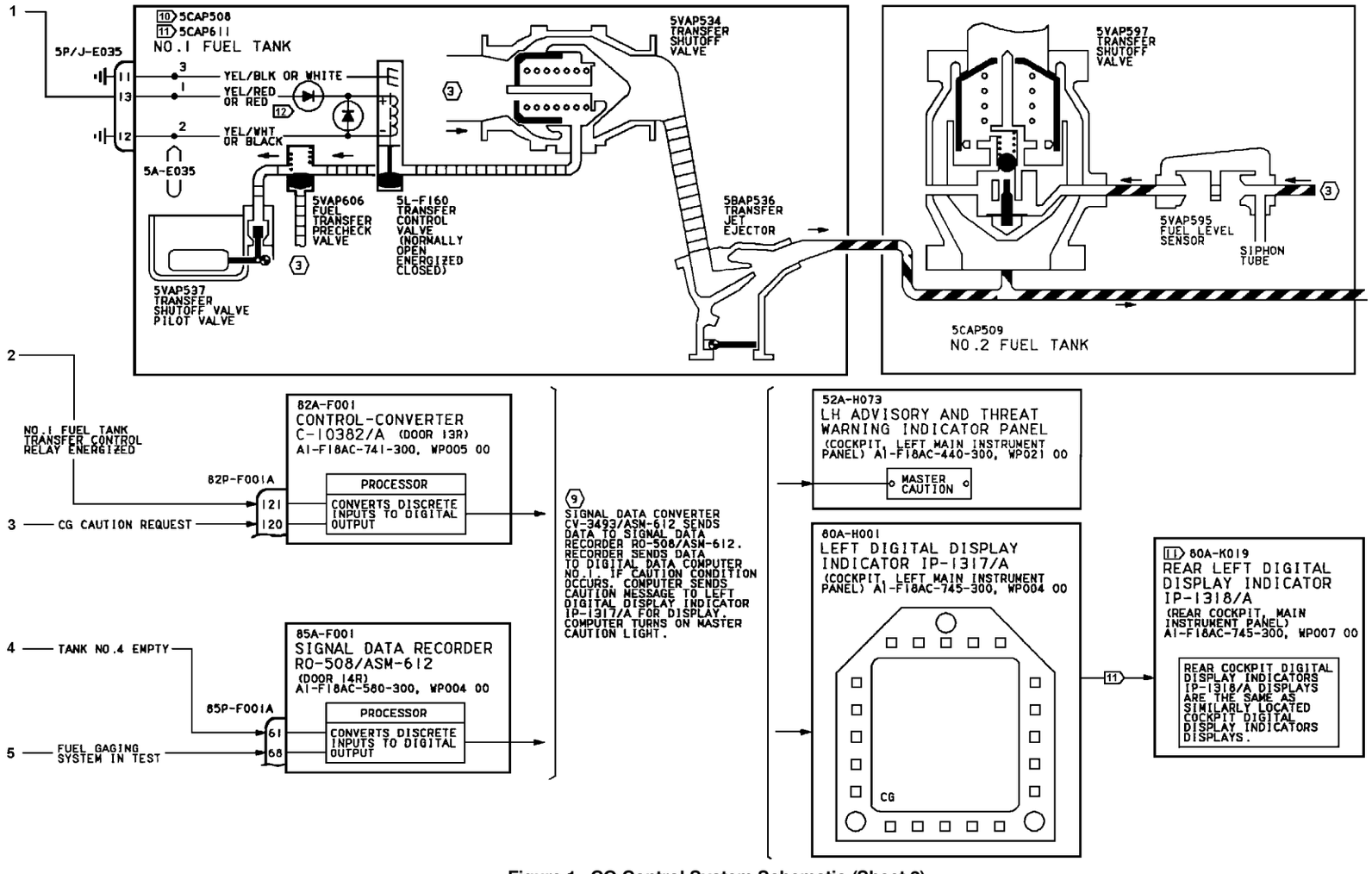
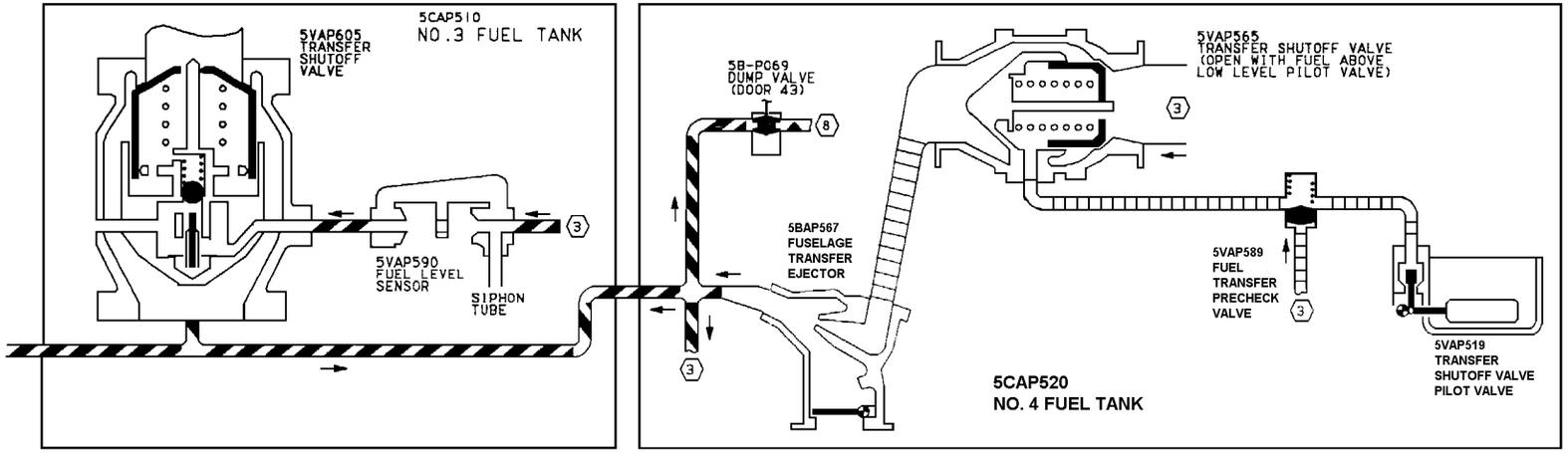


Figure 1. CG Control System Schematic (Sheet 2)



LEGEND

TRANSFER

TRANSFER MOTIVE FLOW

FUEL DUMP

1. CONTINUITY TEST:
   A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.
   B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.
   C. DO NOT TEST LOW LEVEL DEVICES (SWITCH/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCH/RELAY CONTACTS MAY USE RX1 SCALE.
   D. WHEN TESTING CONTINUITY, TEST FOR:
      (1) SHORTS TO GROUND.
      (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
      (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
      (4) SHIELD CONTINUITY.
2. NONSTANDARD SYMBOLS
   ⊕IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1

TELELIGHT

(3) INTERNAL FUEL TRANSFER SYSTEM SCHEMATIC, WP007 00.
(4) FUEL LOW LEVEL WARNING SYSTEM SCHEMATIC, WP013 00.
(5) EXTERNAL FUEL SYSTEM SCHEMATIC, WP006 00.
(6) HOT FUEL RECIRCULATION SYSTEM SCHEMATIC, WP010 00.
(7) POWER DISTRIBUTION SYSTEM SCHEMATIC, A1-F18AC-420-500, WP00500.
(8) FUEL DUMP SYSTEM SCHEMATIC, WP009 00.
(9) CG CONTROL SYSTEM CAUTION SCHEMATIC, THIS WP.
(10) F/A-18A.
(11) F/A-18B.
(12) 74A770174-9CCM VALVE.
(13) INTERNAL FUEL TRANSFER SYSTEM MAINTENANCE CODE SCHEMATIC, WP007 00.
(14) BEFORE F18 AFC 074.
(15) AFTER F18 AFC 074.

14020103

Figure 1. CG Control System Schematic (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

CENTER OF GRAVITY (CG) CONTROL SYSTEM

CAUTION SCHEMATIC

EFFECTIVITY: 161520 AND UP

Reference Material

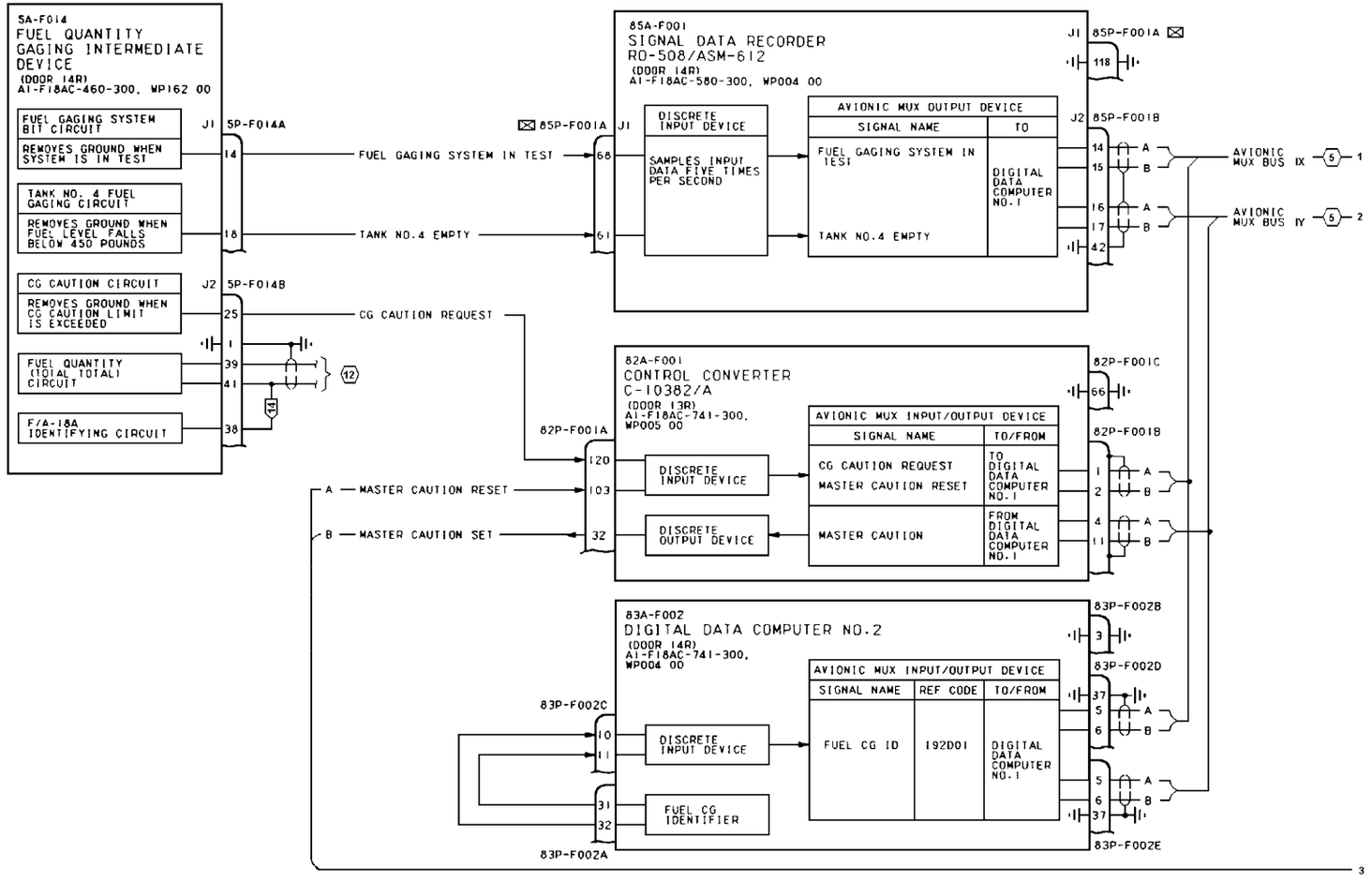
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Record of Applicable Technical Directives

None



14030101

Figure 1. CG Control System Caution Schematic (Sheet 1)

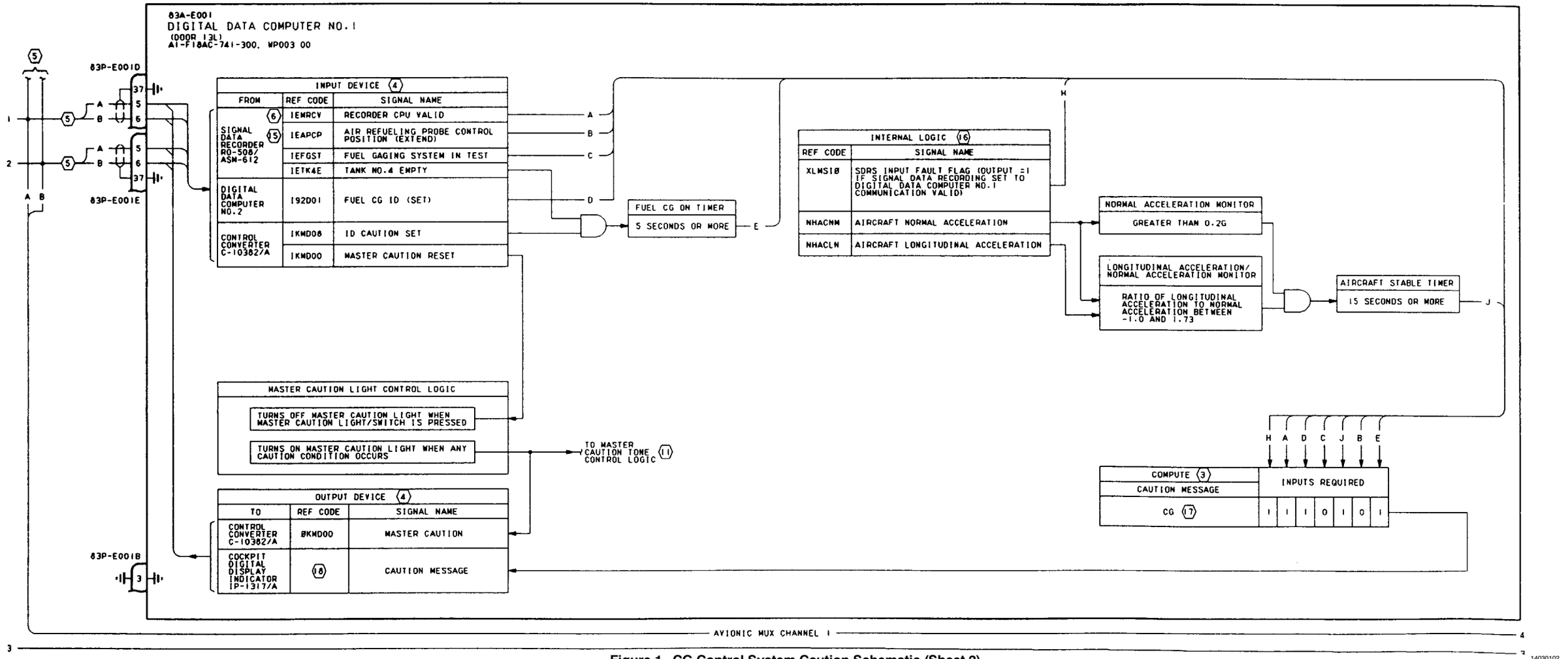


Figure 1. CG Control System Caution Schematic (Sheet 2)

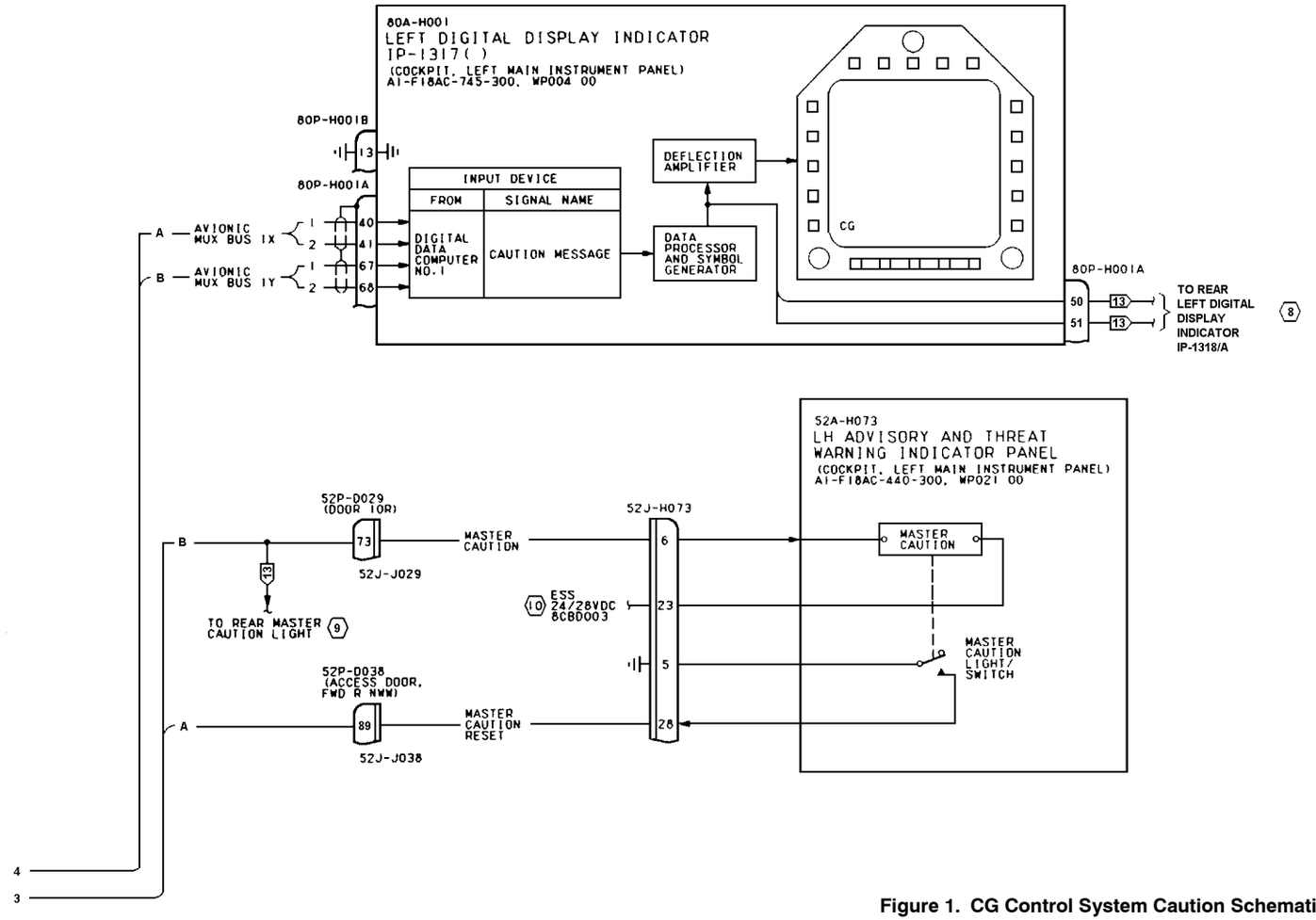


Figure 1. CG Control System Caution Schematic (Sheet 3)

LEGEND

1. CONTINUITY TEST:
   - A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.
   - B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTIG, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFFECTIVE, REPLACE WITH NEW RELAY.
   - C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TEST THAT DO NOT GO THROUGH SWITCHES/RELAY CONTACTS MAY USE THE RX1 SCALE.
   - D. WHEN TESTING TROUBLESHOOTING, TEST FOR:
     - (1) SHORTS TO GROUND.
     - (2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
     - (3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
     - (4) SHIELD CONTINUITY.
   - E. WHEN ELECTRICAL POWER IS OFF, 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR (IDENTIFIED BY ⊠). MAKE SURE MULTIMETER LEADS/JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY.
2. NONSTANDARD SYMBOLS
   - TELELIGHT
   - ⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1.
   - ⊠ IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR. SEE NOTE 1.
3. EXPLANATION OF MATRIX
   - A. COMPUTE COLUMN LISTS THE SIGNAL OUTPUT.
   - B. INPUTS REQUIRED ARE USED TO DEVELOP THE COMPUTED SIGNAL OUTPUT.
   - C. SIGNAL OUTPUT IS READ HORIZONTALLY. EACH HORIZONTAL LINE IS AN INDEPENDENT SIGNAL OUTPUT.
   - D. INTERPRET MATRIX TABLE AS INDICATED:
     - (1) ONE (1) INDICATES THIS INPUT AS NAMED MUST BE THERE TO GET THE OUTPUT.
     - (2) ZERO (0) INDICATES THIS INPUT AS NAMED MUST NOT BE THERE TO GET THE OUTPUT.
     - (3) DASH (-) INDICATES THE OUTPUT DOES NOT DEPEND ON THIS INPUT.
4. FOR LOGIC DIAGRAMS RELATING TO REF CODE, REFER TO A1-F18AC-OLD-000. FOR MEMORY INSPECT ACCESS LOCATION RELATING TO REF CODE, REFER TO A1-F18AC-FIM-100.
5. AVIONIC MUX CHANNEL 1 SCHEMATIC, A1-F18AC-741-500, WP003 00.
6. MAINTENANCE STATUS DISPLAY AND RECORDING SYSTEM BUILT-IN TEST SCHEMATIC, A1-F18AC-580-500, WP012 00.
7. CG CONTROL SYSTEM SCHEMATIC, THIS WP.
8. MULTIPUROSE DISPLAY GROUP INTERCONNECT SCHEMATIC TF/A-18A, A1-F18AC-745-500, WP007 00.
9. REAR COCKPIT CAUTION LIGHTS SCHEMATIC, A1-F18AC-440-500, WP007 00.
10. COCKPIT CAUTION LIGHTS SCHEMATIC, A1-F18AC-440-500, WP006 00.
11. INTERCOMMUNICATION AND AUDIO SYSTEM FUNCTIONAL SCHEMATIC, A1-F18AC-600-500, WP013 00.
12. INTERNAL FUEL TRANSFER SYSTEM MAINTENANCE CODE SCHEMATIC, WP007 00.
13. F/A-18B.
14. F/A-18A 161520 AND UP.
15. INFLIGHT REFUELING SYSTEM SCHEMATIC, WP005 00.
16. REF CODES USED FOR THESE COMPUTATIONS ARE MISSION COMPUTER INTERNAL MNEMONICS. TO LOCATE INTERNAL REF CODES IN A1-F18AC-OLD-000, USE THE LOGIC DIAGRAMS FOR THE INPUT/OUTPUT REF CODES.
17. CG CAUTION ON THIS SCHEMATIC IS SET DURING NORMAL SYSTEM OPERATION. FOR CONDITIONS REQUIRED TO SET CG CAUTION DURING FUEL SYSTEM BIT, SEE FUEL QUANTITY GAGING SYSTEM BIT CAUTIONS AND ADVISORY SCHEMATIC, WP012 04.
18. DISPLAY REF CODES ARE NOT SHOWN. IF DISPLAY MALFUNCTION EXISTS, TRANSFER DISPLAY TO ANOTHER INDICATOR. IF MALFUNCTION EXISTS ON MORE THAN ONE INDICATOR, TROUBLESHOOT USING A1-F18AC-OLD-000 INPUT REF CODES. IF MALFUNCTION EXISTS ONLY ON ONE INDICATOR, TROUBLSHOOT BY DOING DISPLAY TEST, A1-F18AC-745-200, WP004 00 (F/A-18A) OR WP005 00 (F/A-18B).

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ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

CENTER OF GRAVITY (CG) CONTROL SYSTEM

EFFECTIVITY: 161924 THRU 161987; ALSO 161353 THRU 161761 AFTER F/A-18 AFC 39 AND 53

Reference Material

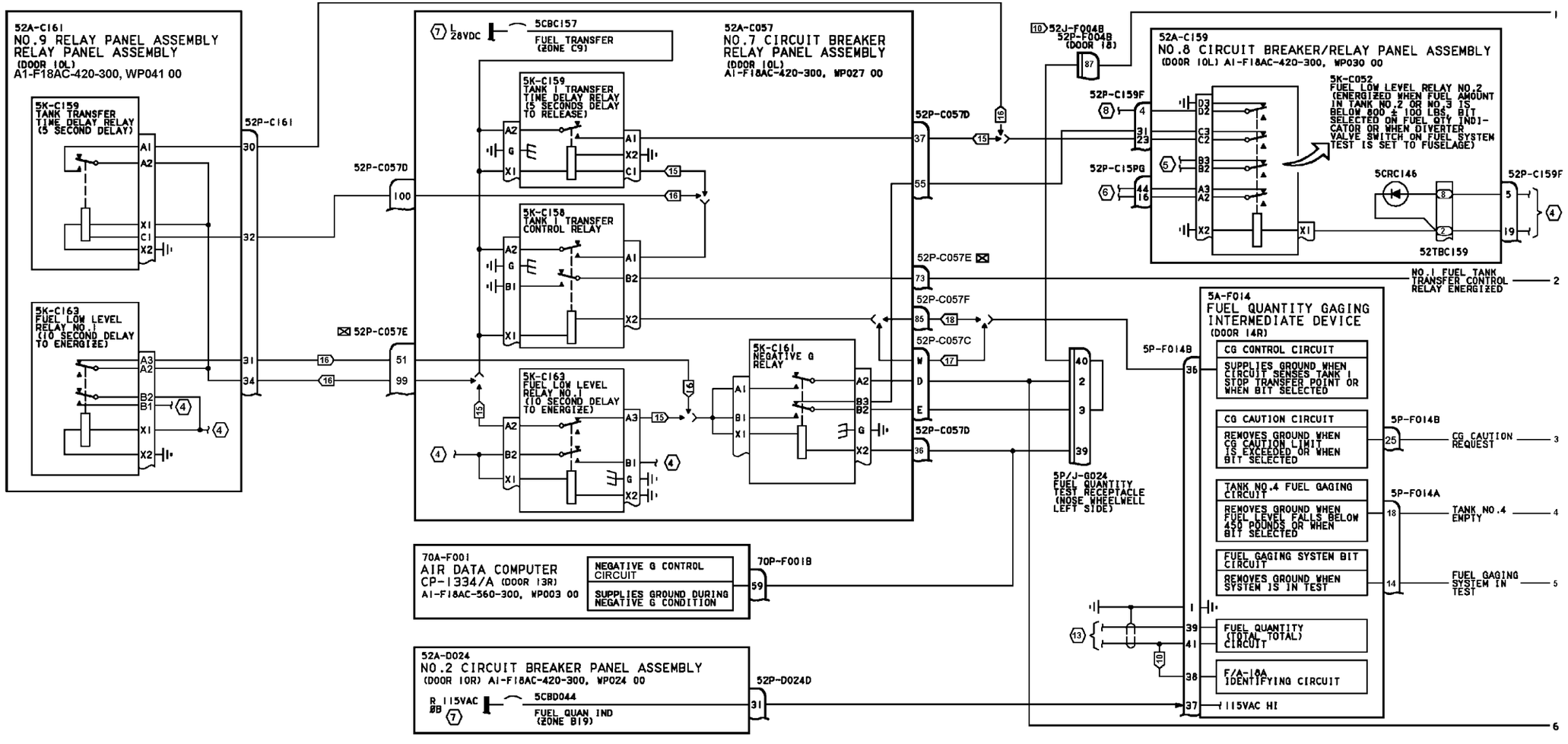
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Record of Applicable Technical Directives

Type/ Number	Date	Title and ECP No.	Date Incorp.	Remarks
F/A-18 AFC 53	-	Elimination of Tanks 1 and 4 Sneak Circuit, Tank 4 Motive Flow Shutoff Valve, and Raised Inverted Baffle (ECP MDA-F/A-18-00055)	1 Aug 86	-
F/A-18 AFC 48	-	Automatic AC Bus Isolation Incorporation of (ECP MDA-F/A-18-00121)	1 Aug 86	-
F/A-18 AFC 39	-	No. 1 Fuel Tank Interconnect Valve Replacement and Fuel Sequencing Modification (ECP MDA-F/A-18-00072C1)	1 Nov 86	-
F/A-18 AFC 74	-	Installation of Aircraft Wiring Provisions For Additional Weapons Capability (ECP MDA-A-18 00090)	15 Jul 91	-



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Figure 1. CG Control System Schematic (Sheet 1)

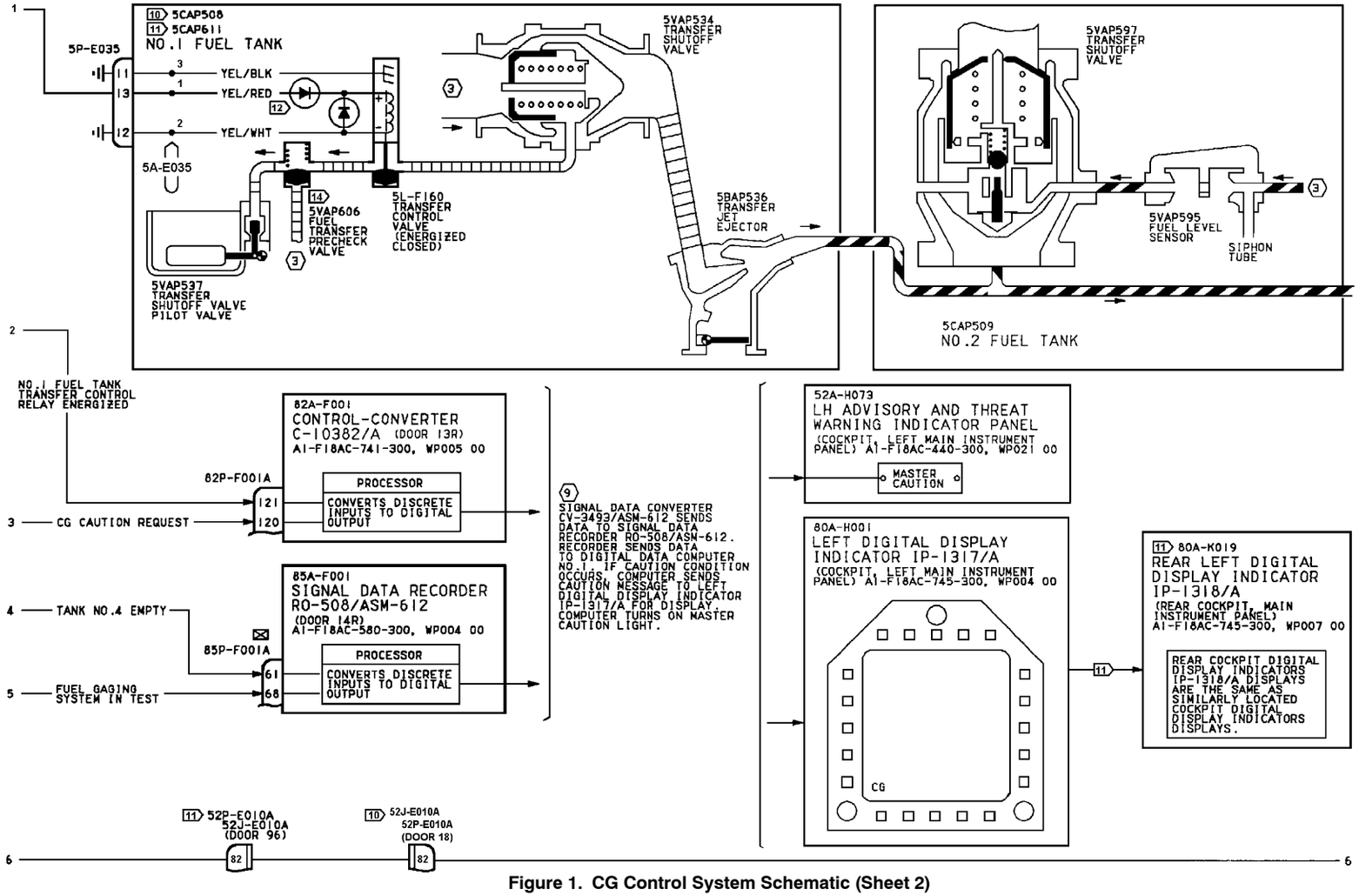
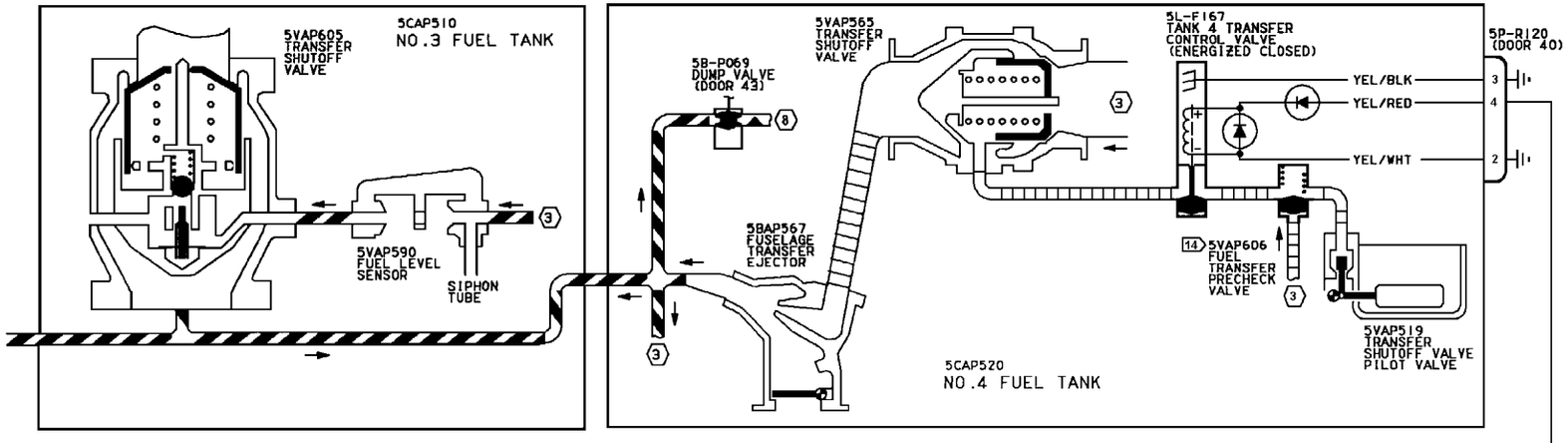


Figure 1. CG Control System Schematic (Sheet 2)



LEGEND

TRANSFER

TRANSFER MOTIVE FLOW

FUEL DUMP

1. CONTINUITY TEST:

A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18A( )-WDM-000.

B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.

C. DO NOT TEST LOW LEVEL DEVICES (SWITCH/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITCH/RELAY CONTACTS MAY USE THE RX1 SCALE.

D. WHEN TESTING CONTINUITY, TEST FOR:

(1) SHORTS TO GROUND.
(2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.
(3) SHORTS BETWEEN SHIELD AND CONDUCTORS.
(4) SHIELD CONTINUITY.

E. WHEN ELECTRICAL POWER IS OFF, 24VDC BATTERY VOLTAGE EXIST ON SOME PINS ON CONNECTORS (IDENTIFIED BY ⊠). MAKE SURE MULTIMETER LEADS/JUMPERS ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY.

2. NONSTANDARD SYMBOLS

⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1.

TELELIGHT

⊠ IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR. SEE NOTE 1.

(3) INTERNAL FUEL TRANSFER SYSTEM SCHEMATIC, WP007 00.
(4) FUEL LOW LEVEL WARNING SYSTEM SCHEMATIC, WP013 00.
(5) EXTERNAL FUEL SYSTEM SCHEMATIC, WP006 00.
(6) HOT FUEL RECIRCULATION SYSTEM SCHEMATIC, WP010 00.
(7) POWER DISTRIBUTION SYSTEM SCHEMATIC, A1-F18AC-420-500, WP00500.
(8) FUEL DUMP SYSTEM SCHEMATIC, WP009 00.
(9) CG CONTROL SYSTEM CAUTION SCHEMATIC, THIS WP.
(10) F/A-18A
(11) F/A-18B
(12) DIODE ON 74A770174-9CCW VALVE.
(13) INTERNAL FUEL TRANSFER SYSTEM MAINTENANCE CODE SCHEMATIC, WP007 00.
(14) 161966 AND UP: ALSO 161353 THRU 161965 AFTER F18 AFC 053 VALVE REMOVED.
(15) BEFORE F18 AFC 048.
(16) AFTER F18 AFC 048.
(17) BEFORE F18 AFC 074.
(18) AFTER F18 AFC 074.

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Figure 1. CG Control System Schematic (Sheet 3)

ORGANIZATIONAL MAINTENANCE

SYSTEM SCHEMATICS

CENTER OF GRAVITY (CG) CONTROL SYSTEM

EFFECTIVITY: 162394 AND UP

Reference Material

None

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Record of Applicable Technical Directives

None

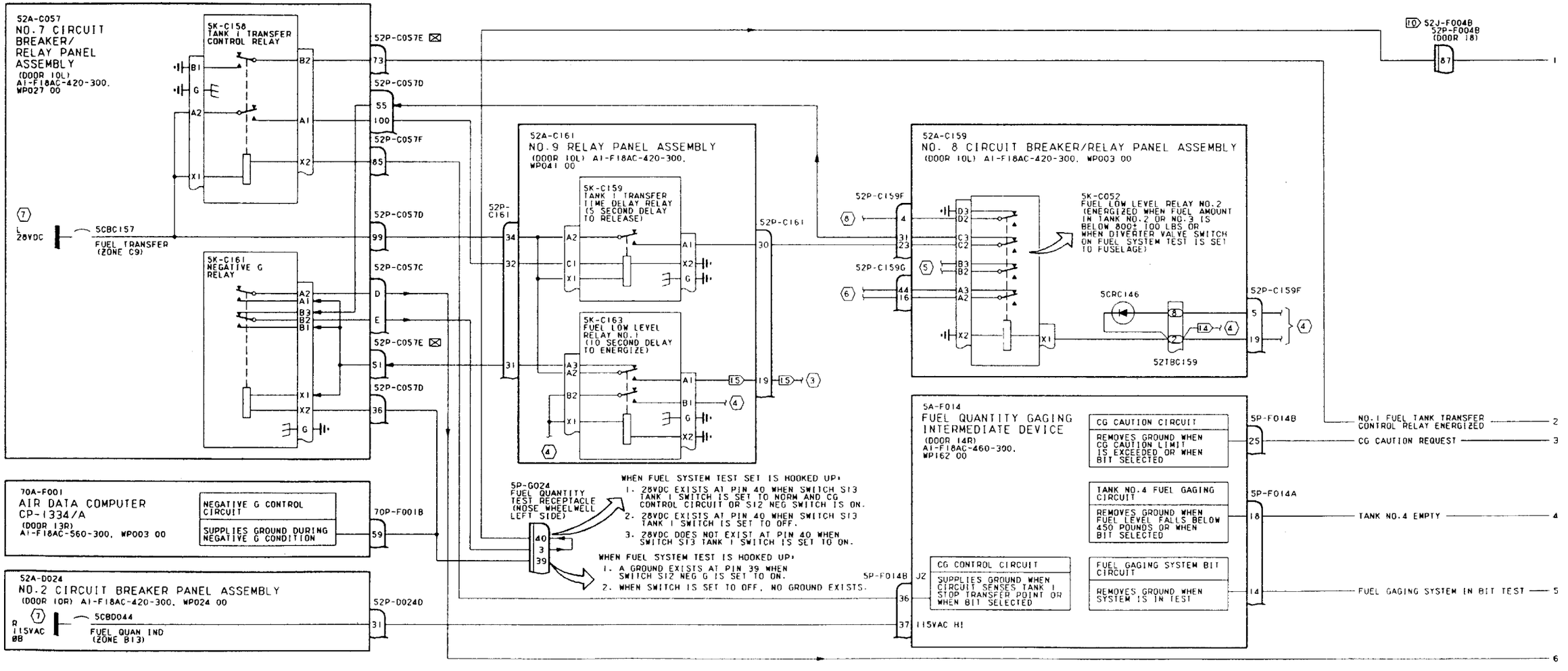


Figure 1. CG Control System Schematic, 162394 AND UP (Sheet 1)

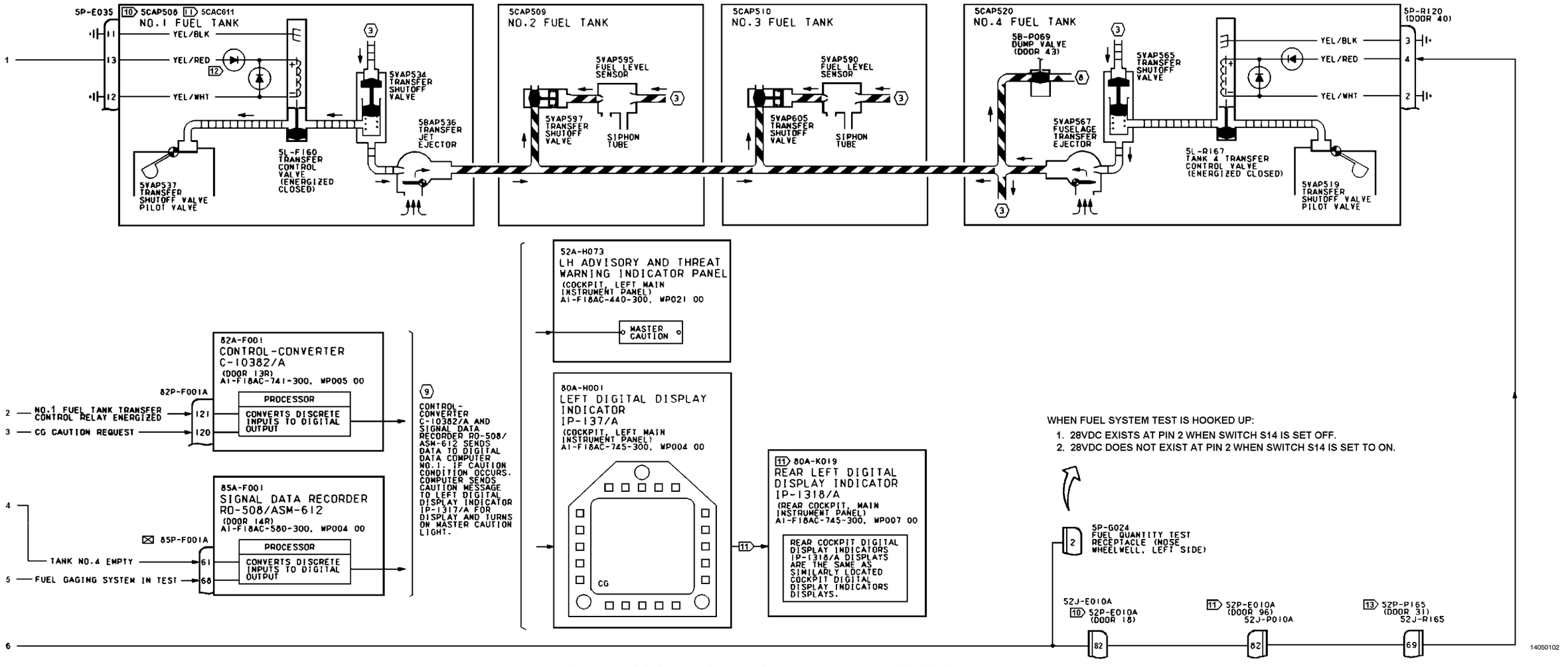


Figure 1. CG Control System Schematic, 162394 AND UP (Sheet 2)

LEGEND

TRANSFER

TRANSFER MOTIVE FLOW

FUEL

1. CONTINUITY TEST:

A. ALL AIRCRAFT WIRE NUMBERS, SPLICE POINTS, AND GROUND POINTS ARE SHOWN IN A1-F18AC( )-WDM-000.

B. WHEN A LOW LEVEL CURRENT SWITCHING RELAY (IDENTIFIED BY ⊕) IS REMOVED FOR TROUBLESHOOTING, IDENTIFY RELAY AND SOCKET FOR CORRECT REINSTALLATION. DO NOT REPLACE LOW LEVEL CURRENT SWITCHING RELAY WITH ANY OTHER USED RELAY. IF RELAY IS DEFECTIVE, REPLACE WITH NEW RELAY.

C. DO NOT TEST LOW LEVEL DEVICES (SWITCHES/RELAY CONTACTS) FOR CONTINUITY WITH MULTIMETER ON THE RX1 SCALE. PIN TO PIN TESTS THAT DO NOT GO THROUGH SWITHES/RELAY CONTACTS MAY USE THE RX1 SCALE.

D. WHEN TESTING CONTINUITY, TEST FOR:

(1) SHORTS TO GROUND.

(2) SHORTS BETWEEN SURROUNDING PINS ON CONNECTORS.

(3) SHORTS BETWEEN SHIELD AND CONDUCTORS.

(4) SHIELD CONTINUITY.

E. WHEN ELECTRICAL POWER IS OFF, 24VDC EXIST AT SOME PINS ON CONNECTOR (IDENTIFIED BY ⊠) MAKE SURE MULTIMETER LEADS/JUMPER WIRES ARE INSTALLED ON CORRECT PINS WHEN TESTING FOR CONTINUITY.

2. NONSTANDARD SYMBOLS

⊕ IDENTIFIES RELAY USED TO SWITCH LOW LEVEL CURRENT. SEE NOTE 1.

TELELIGHT

⊠ IDENTIFIES 24VDC BATTERY VOLTAGE EXISTS ON SOME PINS OF THE CONNECTOR. SEE NOTE 1.

(3) INTERNAL FUEL TRANSFER SYSTEM SCHEMATIC, WP007 00.

(4) FUEL LOW LEVEL WARNING SYSTEM SCHEMATIC, WP013 00.

(5) EXTERNAL FUEL SYSTEM SCHEMATIC, WP006 00.

(6) HOT FUEL RECIRCULATION SYSTEM SCHEMATIC, WP010 00.

(7) POWER DISTRIBUTION SCHEMATIC, A1-F18AC-420-500, WP005 00.

(8) FUEL DUMP SYSTEM SCHEMATIC, WP009 00.

(9) CG CONTROL SYSTEM CAUTION SCHEMATIC, WP014 03.

[10] F/A-18A

[11] F/A-18B

[12] DIODE ON 74A770174-9CCM VALVE.

[13] 162445 AND UP.

[14] 162394 THRU 162477.

[15] 162826 AND UP.

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Figure 1. CG Control System Schematic, 162394 AND UP (Sheet 3)